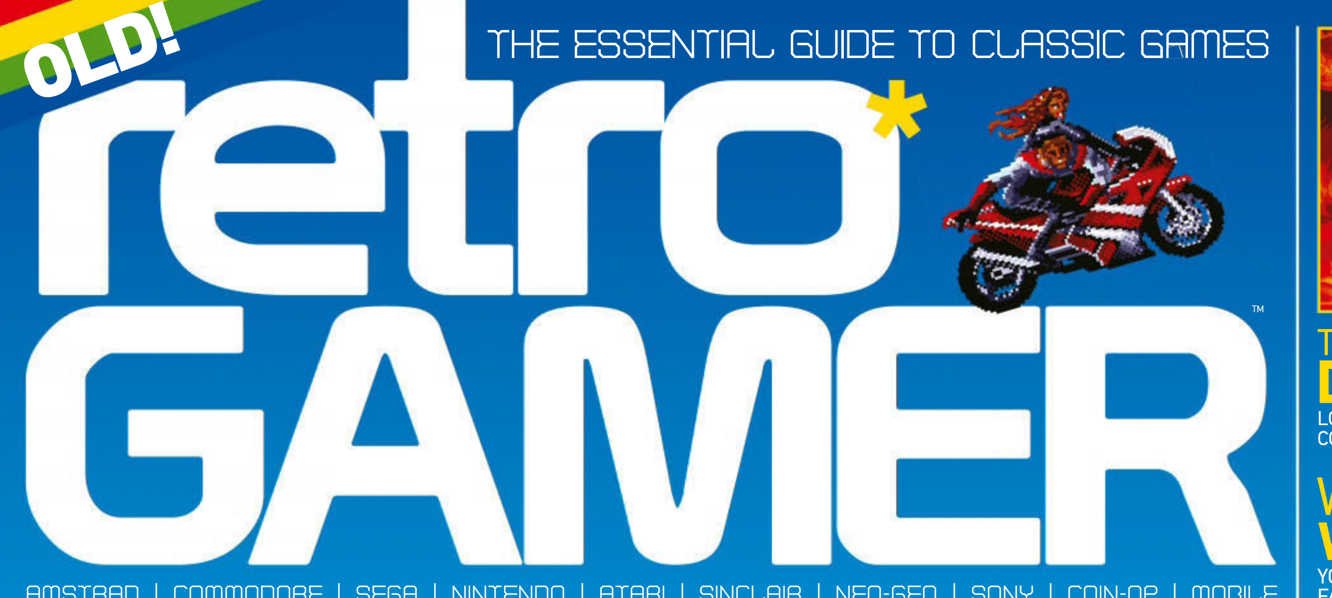
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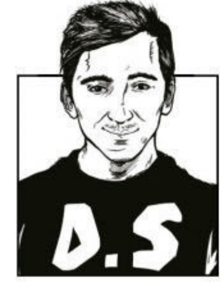
THE RETROBATES FAVOURITE DISNEY GAME



DARRAN JONES
Kingdom Hearts – not because it's my favourite, but because I used to play it with my daughter and cherish those memories.
Expertise:
Juggling a gorgeous wife, two beautiful girls and an award-winning magazine
Currently playing:
The Legend Of Zelda: Breath Of The Wild
Favourite game of all time:
Strider



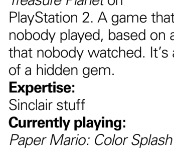
NICK THORPE
Just thinking about *The Lucky Dime Caper* has started the forest level music playing in my head, so it's got to be that.
Expertise:
Owning five Master Systems (I sold two)
Currently playing:
The Legend Of Zelda: Breath Of The Wild
Favourite game of all time:
Sonic The Hedgehog



DREW SLEEP
They say you never forget your first, and mine was *The Lion King* on Mega Drive. I think that second level gave me trauma, mind.
Expertise:
#SavingDeeble
Currently playing:
Horizon Zero Dawn
Favourite game of all time:
Final Fantasy VIII



SAM RIBBITS
Curveball – I'm going for *Mickey's Racing Adventure.* *Insert obligatory Game Boy memory here*
Expertise:
Making Link eat wafers and throwing cake in Quake.
Currently playing:
Super Mario Land
Favourite game of all time:
Croc: Legend Of The Gobbos

PAUL DRURY
Piglet's Big Game is brilliant. Loved playing it with my daughters when they were little and we still reminisce about how ridiculously tough the later Woozles are.
Expertise:
Paul Woakes' Christmas card list
Currently playing:
Nuclear Countdown
Favourite game of all time:
Sheep In Space



MARTYN CARROLL
Treasure Planet on PlayStation 2. A game that nobody played, based on a film that nobody watched. It's a bit of a hidden gem.
Expertise:
Sinclair stuff
Currently playing:
Paper Mario: Color Splash
Favourite game of all time:
Jet Set Willy



GRAEME MASON
Tron: Deadly Discs on the Intellivision. It's a great score attack game that's still fun today. I love the sound effect when your disc bounces off the Recognizer!
Expertise:
Adjusting the tape azimuth with a screwdriver
Currently playing:
BioShock Infinite
Favourite game of all time:
Resident Evil 4



JASON KELK
I lost a ridiculous amount of time playing *Walt Disney World Quest: Magical Racing Tour* on the Dreamcast while trying to find all the shortcuts.
Expertise:
Being a homebrew hero
Currently playing:
Uridium Plus
Favourite game of all time:
Io

LOADING...

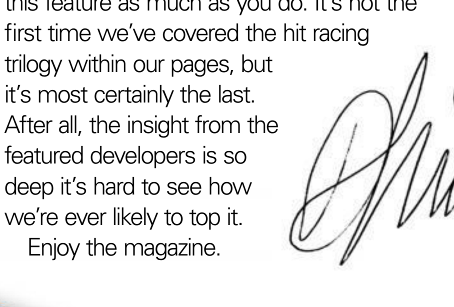


My wife isn't much of a gamer. In fact, it's safe to say that she's absolutely not a gamer. Sure, she dabbled with PSVR when I purchased it last October, and she used to love playing *Mario Kart 64* and *GoldenEye* before our kids came along, but aside from a brief dalliance with *The Urbz: Sims In The City*, she'd rather stick her nose in a good book than pick up an actual joypad.

So imagine my surprise when I came home from work one evening and saw her face light up with recognition when I mentioned that we were planning on running *Road Rash* as a cover. "*Road Rash*? I loved *Road Rash*, it was the first game I bought on my Mega Drive." Whenever she's referred to playing on a Mega Drive in the past, I'd simply assumed that it was her boyfriend's and left it at that, because let's face it, who wants to hear that your partner's ex was a better gamer than you? Good news, he wasn't.

I'm hoping then that she's going to enjoy this feature as much as you do. It's not the first time we've covered the hit racing trilogy within our pages, but it's most certainly the last. After all, the insight from the featured developers is so deep it's hard to see how we're ever likely to top it.

Enjoy the magazine.





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>> Load 166 Breathing new life into classic games

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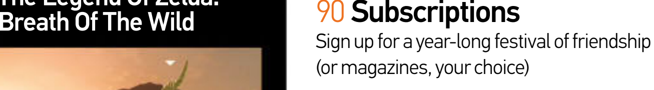
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REVIEWS

ESSENTIALS



BACK FROM THE ASHES

Rob Hewson and Jonathan Port on their love letter to classic shoot-'em-ups



CONTENTS

Back in July 2016, Andrew and Rob Hewson attempted to launch *Hyper Sentinel* on Kickstarter. Clearly inspired by Andrew Hewson's *Uridium*, it fell well short of its £35,000 asking price, and was ultimately unsuccessful. Now, though, *Hyper Sentinel* has relaunched and it has hit its new £15,000 goal with two weeks left to go at the time of writing. Rob Hewson and coder, Jonathan Port explain how it happened.

What did you learn after *Hyper Sentinel*'s failed Kickstarter?

Rob Hewson: The original backers and our community in general have been wonderful and very clear in their feedback – they wanted a free demo for PC/Mac and they wanted us to include all the platforms we could in the Kickstarter goal. Perhaps we came to Kickstarter a little bit early last time around, but the community was great and many of them asked us to come back to Kickstarter once their feedback had been addressed. I think we also did a better job this time around of making a clear and simple campaign – we probably made it a bit too complicated before.

Jonathan Port: The enthusiasm of the community has also been the fuel, which has kept us going. It gave us the belief we needed to keep the project alive, which has included committing a lot of spare time to it. Coming back to Kickstarter and having people tell us how much they are enjoying the demo

READERS REACT
Your thoughts on Hyper Sentinel

I'm a big fan of *Uridium* but I absolutely detest 'epic boss battles' so I won't be buying *Hyper Sentinel*.
The Beans

The demo's great on iOS. Really enjoying it. Can't wait for the full version.
psj3809

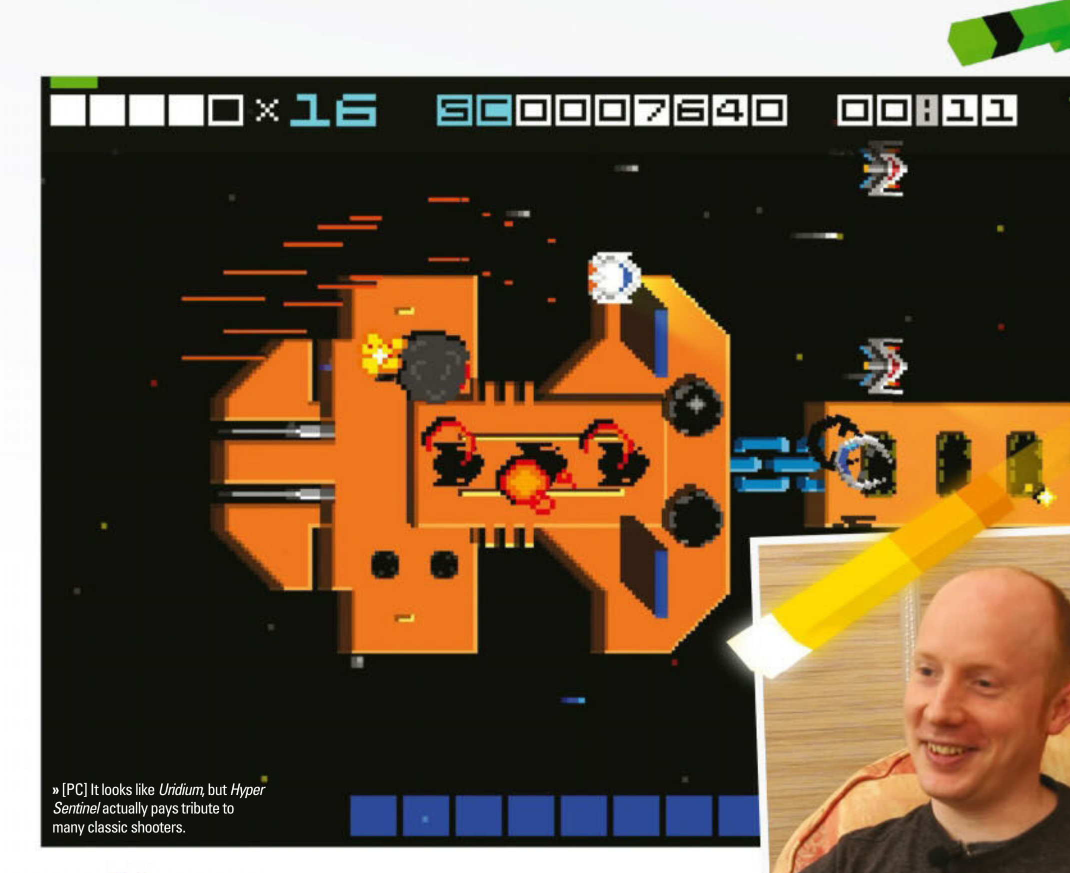
I'm going to wait until the game's finished and make my mind up then. Recent events have rather put me off crowdfunded projects for the moment.
Matt_B

Yup, backed it. The reward tiers are pretty sensible compared to most kickstarters. Even if the demo video did give me a migraine.
the_hawk

I wish they had done a *Paradroid* update than a *Uridium* one. *But* if this does well, maybe they will do something like that next?! I'm in though – not my favourite type of game but I did enjoy *Uridium*.
markopoloman

Yes. Backed it, been playtesting it.
merman

Backed it, looking forward to its release.
PostieDoc



» [PC] It looks like *Uridium*, but *Hyper Sentinel* actually pays tribute to many classic shooters.

» [PC] Rob Hewson (left) and Jonathan Port (right) are pleased with how *Hyper Drifter* is being received.

"Great games, like Uridium, deserve to be enjoyed as they were meant to be"

Jonathan Port

is a fantastic reward for that effort, but we couldn't have done it without the passion of the community.

What has changed about the game since your first pitch?

JP: We've added some new features, such as the Powerdroid weapon upgrades, and we've also redesigned some existing components – particularly the scoring system. In both cases feedback from the community was very helpful. As well as these, we've been able to add plenty of extra polish, one area in particular is lighting, which we've used to create a unique atmosphere during boss battles.

***Hyper Sentinel* is clearly based on *Uridium*. What do you like about Braybrook's original?**

RH: The first games I ever remember playing are *Gribbly's Day Out*, *Paradroid* and *Uridium*. In fact I remember my dad teaching me how to spell my surname from the *Uridium* title screen! Andrew Braybrook is a genius and *Uridium* was his biggest hit. However, although *Uridium* is an influence which is clearly apparent when people first see the game, when you actually go hands-on and play it you'll notice that it feels quite distinct and there are other sources of inspiration in there.

JP: *Uridium* was the first arcade-cabinet-quality game on a home computer, it was smooth and beautiful to watch in motion. While *Hyper Sentinel* has a stylistic influence, the gameplay isn't so much based on *Uridium*. It really has a lot more in common with something like *Defender*, and that's where a lot of the inspiration for the speed and feel of the game comes from. Also, I have very fond memories of *Cybernoid* with its explosive effects and wanted a similar feel for the explosions and particles in my game. My goal was to create a game which captures the spirit of classic shoot-'em-ups, while bringing the gameplay into the 21st century.

RH: Jon's vision to create a game which captures your rose-tinted memories of classic games, while offering a fresh experience was something which made a lot of sense to us. I think it is important not to simply focus on nostalgia for nostalgia's sake.

How long have you been working on *Hyper Sentinel* now?

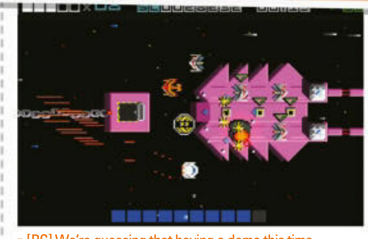
JP: It started in September 2015, so we're nearly two years in now. The game has changed a great deal since then, and we've gone through several iterations to arrive at the balance of systems we have in the game now.

What's been the hardest thing to achieve, gameplay-wise?

JP: Getting the balance of the multiplier system, the energy system and the difficulty level right has taken many iterations of development. Huey Games' past experience has been crucial in helping get this balance correct. The game is playable for all ages and abilities; it's been hard work getting that fine-tuning just right, but the game feels fantastic for the time put into this aspect.

Do you think including consoles has helped sustain interest?

RH: Absolutely. We always intended to bring the game to consoles, but to be able to confirm that was an important development. *Hyper Sentinel* is a pick-up-and-play arcade experience, so it feels right at home on consoles.



» [PC] We're guessing that having a demo this time around has helped *Hyper Sentinel* reach its target.

Finally, do you think you'd have had more interest if you'd secured the *Uridium* licence?

JP: Not being tied to a licence has allowed us to explore freely and to choose a different emphasis for *Hyper Sentinel*, even while pulling in references to other games, some of which are obvious, some of which are more subtle nods and winks. Great games, like *Uridium*, deserve to be enjoyed as they were meant to be. I would like to think there's a space where we can bring back that impulsiveness of past games, but with new twists on gameplay. *



ALAN STONE PASSES AWAY

Obituaries on Gamasutra and Intergame revealed that Alan Stone, the cofounder of Nintendo Of America, recently passed away after a long battle with cancer.

Alan started off his videogame career alongside Ron Judy when they formed Far East Video in 1979 to distribute Nintendo's arcade games across Europe and America. Not content with bringing the likes of *Donkey Kong* to the masses, he helped form NOA, staying with the company until 1994, when he left to become president of Sega Enterprises. He left Sega after ten years, but his love for gaming never faded, and he continued to hold high positions on various tech and game companies.

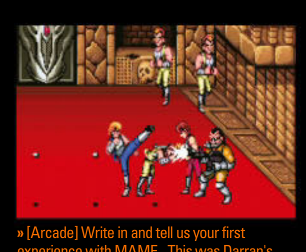
Our condolences go out to his friends and family.



MAME TURNS 20

Nicola Salmoria's MAME recently celebrated its 20th birthday. The 'Multiple Arcade Machine Emulator' is one of the most popular and open source emulators around, and now supports over 7000 games.

Nicola originally worked on MAME by himself, eventually handing over duties to Mirko Buffoni in 1997 due to national service commitments. Since then, several people have taken over the project and it's now managed by hundreds of developers the world over, with support by outside contributors. MAME remains the only way for many gamers to experience classic arcade games, so here's to Nicola and everyone else who has made it such a joy to use over for the last 20 years.



» [Arcade] Write in and tell us your first experience with MAME. This was Darran's.

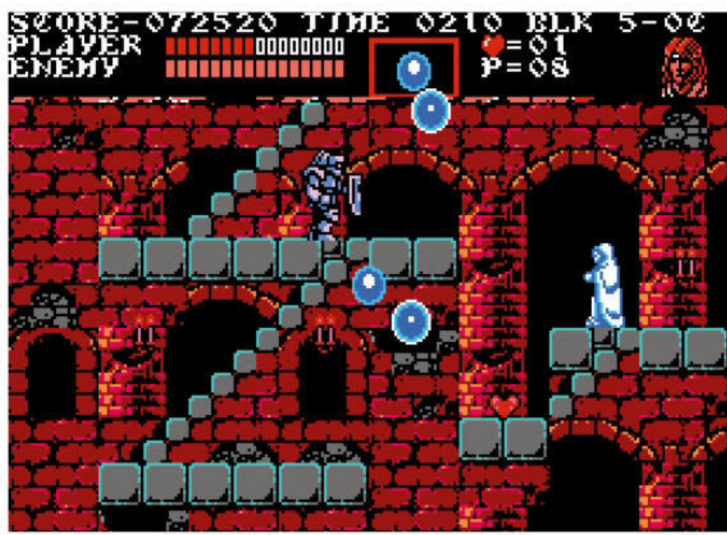
A TV SHOW WITH BITE

CASTLEVANIA HEADS TO NETFLIX

The internet was set ablaze in early February when Netflix revealed that the classic game series was heading to its online streaming service later in 2017.

Rumours of a *Castlevania* movie have been circling for years (*Resident Evil*'s Paul Thomas Anderson was attached to the film as early as 2005) but it long since appears to have fallen into development hell. Although Netflix itself has revealed little about the show other than that it will consist of four 30-minute long animated episodes, producer Adi Shankar has been a lot more talkative. In a recent interview with IGN he revealed that the series has been based on *Castlevania III: Dracula's Curse* and went on to compare it to HBO's *Game Of Thrones* TV series. "[The series is] going to be R-rated as f**k. [It's going to be] America's first animated series for adults."

Known for producing films such as *Dredd* and *The Grey*, Adi Shankar has surrounded himself with some fine company, and is confident that his series will be "the best f**king videogame adaptation we've had to date". In addition to being an executive producer on the series alongside Adi Shankar, acclaimed comic book writer Warren Ellis is also writing the script for the first season. Other executive producers include Kevin Kolde and Fred Seibert, whose animation company, Frederator Studios, will be handling the animation.



» [NES] It will be interesting to see how the plot of *Dracula's Curse* translates to a TV show.

Although Netflix hasn't revealed when the series will be available for streaming, it's speculated by many that the series is due to launch in the fourth quarter of the year. Adi Shankar has also let slip that a second season will be following in 2018, although Netflix hasn't confirmed anything. More news as we get it.



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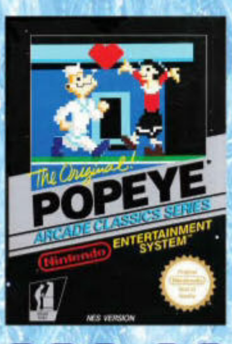


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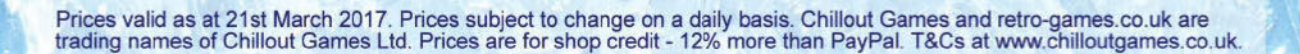


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Legendary Bird Prints

There's always something nice about custom videogame art, but few pieces are quite as cool as these *Pokémon*-inspired prints. This set of three prints depicts Articuno, Zapdos and Moltres, the legendary birds from the original generation of the hit RPG series. For the uninitiated, these are rare creatures that you'd only get one chance to battle and capture. Thanks to the classical Japanese style, these are rather subtle ways to show your appreciation for the series – it wouldn't be immediately obvious to the casual observer that you're celebrating a Game Boy game.

Price: £14.99 each **From:** gametee.co.uk

Independent By Design

This book by Stace Harman and John Robertson interviews many developers involved in the indie gaming scene over recent years. Some like Cellar Door Games (*Rogue Legacy*) and Roll7 (*OlliOlli*) make retro-inspired games, while the likes of inXile Entertainment have revived old properties (*Wasteland 2*), so there's a good deal of interesting content for retro gamers to dig into.

Price: £25 **From:** indiebydesign.net

Doom Mug

If you're anything like us, the tea break is a very social ritual – a daily slice of time for interacting with people you like. However, that harmony can be shattered if your mug is mistakenly nabbed by a colleague. Ensure that doesn't happen by grabbing a mug with a Cacodemon on it, and impress fellow *Doom* fans in the process.

Price: £9.99 **From:** funstockretro.co.uk

Everdrive GBA X5

The Everdrive range is known for offering an easy way to play homebrew games and consolidate your collection onto a single cartridge, and the GBA version is no different. The device offers high compatibility, space for saves and a real-time clock function, as well as the ability to play NES, Game Boy and Game Boy Color games via emulation.

Price: £94.99 **From:** retrotowers.co.uk

The History Of Mario

For anyone with an interest in the life and times of Nintendo's evergreen mascot, this book by William Audureau is an invaluable resource. Drawing on a variety of historical resources, it manages to place Mario's ascent from the beginning to international superstardom in context within the videogames industry – not just globally, but on a region-by-region basis.

Price: £22.99
From: funstockretro.co.uk

Here's my bio… Paul Rose
Paul Rose is probably better known as Mr Biffo – the creator and chief writer of legendary teletext games magazine *Digitiser.* These days, he mostly writes for kids TV, but can still be found rambling on about games, old and new, for his daily website, Digitiser2000.com.

A:\RADAR\COLUMN\

166 BYTES USED IN 12 ITEMS.

No love lost

Okay, look. There's something I need to get off my chest. It's big for me. Really big. I'm just going to come out and say it, and here goes…

I never loved my Atari ST.

Yes, I know, I know. It's terrible. My parents bought me that machine for Christmas one year, but it felt like they'd been forced into an arranged marriage. I tried to make it work out of respect for them, but now, all these years later, I'm finally able to admit to myself that the relationship was doomed from the beginning.

This belated realisation came to me recently when somebody posted a picture of an ST on my Twitter feed, claiming it to be the best computer of all time. It wasn't that I disagreed – it was more that I felt nothing. Just an emptiness. The emotional equivalent of an involuntary shrug. That's when I knew: all those years as an ST owner and I was just going through an automatic charade of caring.

Admittedly, it has taken me almost three decades to realise this, so you can imagine that I'm still processing it. Nonetheless, it feels good to at last admit to myself something that I'd only previously felt on a subconscious level.

So I will say it again: out of all the games machines I owned… my Atari ST was the one that I feel the least affection towards. Heck, no affection at all, in fact. Nothing. Not a single thing. Not a corner of my heart has a space reserved for the machine.

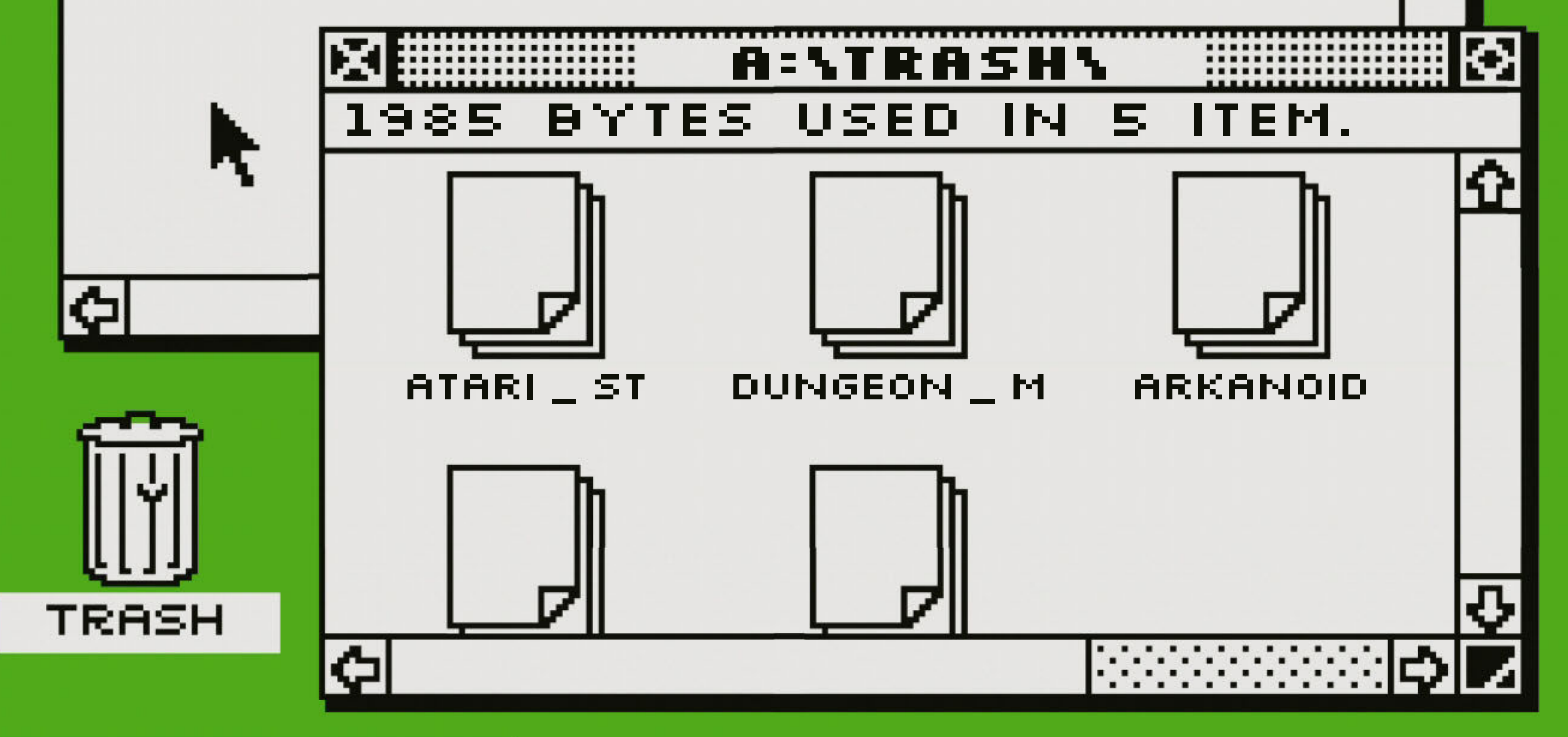
Believe me when I say that this has taken me by surprise. All these decades I told myself that I was on the side of the ST in the bitterly fought Atari/Commodore War. Truth is, Atari ST Land is just where I happened to be living at the time. If they'd tried to conscript me into their battles I'd have probably feigned a gammy leg.

There isn't another games machine I owned to which I feel the same degree of apathy. My Atari 2600 was my first kiss. My Spectrum, obviously, was my first true love. My Master System was a swift, but never-regretted, fling. The Mega Drive, the SNES, my PC, Game Boy, Wii, 360, PS4… all of them I feel something for. All of them mattered in some shape or form. Except the poor Atari ST. In terms of my gaming history it is – and this makes me feel so crushingly guilty – irrelevant.

Already, I can hear the Amiga owners warming up their party poppers. "Oh, of course you don't love the ST – it was rubbish," they'd say. "You should've owned an Amiga!"

But it isn't that it was rubbish. There was just something a bit sort of characterless about it. I owned it at a time in my life where, possibly, it wasn't sufficiently charismatic to draw my attention away from slightly more exciting pursuits. So perhaps that's it; the Atari ST was just sort of there in my bedroom, at the wrong time in my life.

In short: sorry, Atari ST. It's not you, it's me. *



What do you think?

Do you agree with Paul's thoughts? Contact us at:

 RetroGamerUK  @RetroGamer_Mag  darran.jones@futurenet.com



Re-engineering Retro

René Richard makes and sells unique Retro accessories through his company db Electronics

What kind of products does db Electronics produce?
I design and produce products for retro gaming consoles. I try to design products for which I have a personal need. For example, I made the Power Base FM because this was just about the only way that I could enjoy the FM soundtrack on many Master System games. I've toyed with guitar electronics in the past but that market is heavily saturated so nowadays I stick to retro gaming.

How did you become interested in electrical engineering?
I've always been a tinkerer as long as I can remember. It started with Lego, then, as I got a bit older, I would open my Genesis game cartridges and wonder in amazement how *Sonic* could be inside that little black chip. I would routinely disassemble anything that came into my possession to try and figure out how it worked. I quickly realised I was destined for an engineering career!

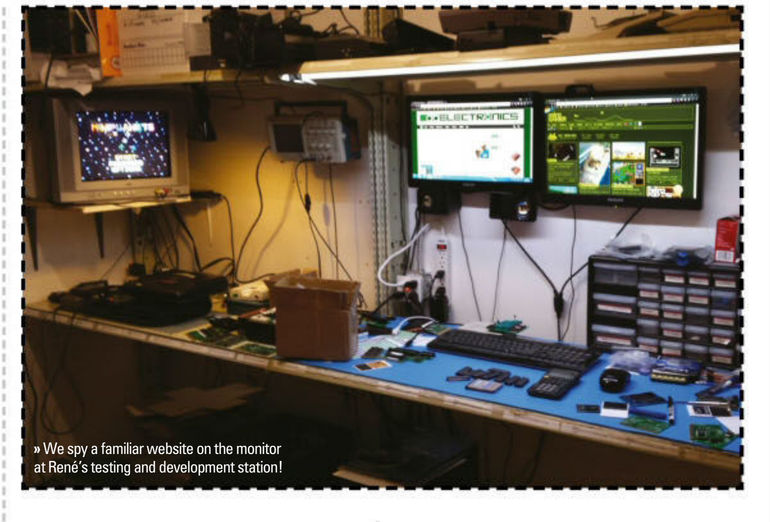




» The Power Base FM allows you to enjoy enhanced soundtracks in Master System games.

When did you decide to apply that knowledge to create retro gaming accessories?
I live in a very small town in Northern Canada, Kapuskasing, about 7,000 inhabitants. I did my post-secondary education in Ottawa (Canada's capital) and worked in the electronics industry for five years after graduation. Then, I got homesick and decided to move back home, which is about 800km away from any major population centre.

Upon moving back, I worked a bunch of odd jobs (substitute high school teacher, bank teller, machine shop technologist, etc.) until I finally landed a systems analyst position for the district school board two years after moving back. But during that two years of practically no electrical design or software design, I was craving 'real' work and thus I decided to work on my own little electronics projects during my free time in order to maintain my level of knowledge.



» We spy a familiar website on the monitor at René's testing and development station!

The first project I decided to tackle was the Power Base Mini, my intention was to make one for myself, and while I'm at it, sell the other nine (because the minimum PCB order quantity was ten units). To my surprise I sold the nine extra units online within a few hours – it was then that I knew there was potential in building more!

How much demand is there for retro console accessories?
I intentionally limit my supply to match the amount of time I am willing to spend on building and testing units per week. I have a full-time job outside of db Electronics, and a young family to attend to as well. I'm fairly certain I could double or triple my inventory and keep selling at a regular pace. However, this would not be in harmony with my personal life. First and foremost, I do this for fun!

Which of your products has been the most popular to date?
My best selling product thus far has been the Power Base Mini, but the Grafxbooster is definitely giving it a run for its money lately!

Are there any future developments planned that you can tell us about?
I am focusing my efforts on developing a universal cartridge dumper/flasher with interchangeable connectors. In simple terms, think of it as a USB device which allows any cartridge (with the corresponding connector) to be dumped. And, using my custom blank flash carts, will allow regular users to burn any game they desire on their own cartridges. It's not an Everdrive. Rather, this product line of mine is aimed at homebrew developers. *



» Assembled Power Base Mini, Power Base FM and Grafxbooster units ready for packaging and shipping.

» The db Grafxbooster offers composite, S-Video and RGB outputs for many models of PC Engine with no modding required.

DISCUSS

What's your favourite games console?



■ The PSone for me. Practically every game seemed to be different and original, and of high quality. Sony's console seemed to really spark creativity in programmers, and it seemed like games were fresh and interesting again.
ncf1

■ SNES, I love the controller and the games are awesome. I still play the SNES more than my Xbox One now. *Super Mario World*, *Street Fighter 2 Turbo*, *Super Bomberman*, *Super Castlevania*, *Super Ghouls 'N Ghosts*, *Turtles In Time*, plus many other games.
Big Shoes

■ The Atari VCS because you never forget your first love.
the_hawk

■ The 360, because it's the best games machine of all time.
HalcyonDaze00

■ As much as I'd love to say C64GS, I can't... It has to be the SNES. It was when Nintendo got on point with its franchises, arguably producing the pinnacle for three (*Mario*, *Metroid* and *Zelda*).
Mayhem



Twitter
twitter.com/@RetroGamer_mag

■ PSone has the quintessential game library for me, but I would happily argue people to death on the merits of the SNES.
@vanrockingham

■ The SNES. Groundbreaking, but welcoming. It didn't reinvent the wheel, just perfected it. It was all open arms back then.
@MisterFrostXD

■ PlayStation. [It has so] many revolutionary games, so many memories. I still own my original PlayStation and it still works.
@djkoelkast

■ Favourite? Mega Drive. Although, if you asked me what the greatest was, it would be the Dreamcast :).
@kazade

■ Used to be N64, but the GameCube edges it today. Nothing has had a library that good. *Wind Waker*, *Metroid*, *F-Zero*...
@olrodlegacy

■ I was a Spectrum kid. The only 'console' I had growing up was an Atari Lynx. So glad that I had something a bit more unusual!
@TheRealSiMcD



■ 3DO or Dreamcast. Love an underdog.
Colin Alexander

■ Has to be the SNES. So many great games. Really cemented some key franchises and has the best RPGs to date.
Chris Calvert

■ Dreamcast! It was pure awesomeness and it was like having an arcade machine at home. And *Shenmue*, still my fav game ever.
Kurt-Arne Strømmen

■ Got to be PSone, just the memories of only having *Porsche Challenge* for months and desperately trying to get a mate to lend me *Tomb Raider*!! Oh and replaying demo one over and over!!
John Wright

■ The Atari VCS, hours of fun for a small kid and when Activision came along with their games it was just amazing what they got out of the machine
Paul Sunderland

■ Nintendo Wii, the virtual console adds so many great games to an already diverse and fun library, either that or the DS which did the same.
Philip Gibbs

JEWEL IN THE CROWN

THE PUNISHER

■ "It's really hard to find in immaculate shape, so I'm glad I have mine complete. It's usually the first thing I'm drawn to when I admire my collection."

PAID: £250-£300

DEMON'S CREST

"My mum bought me this one Christmas. She's bought me a ton of games growing up, but this one in particular has more relevance. She researched it, she knew I wanted it and coughed up for it even though I was against her getting it. Thanks, mum."

PAID: £0

WONDER BOY IN MONSTER LAND

"Technically, this is not my first game as I had *Hang-On* on built into my Sega Master System. This was my first physical game purchase, though. Man, what a game it was!"

PAID: £29.99

CASTLEVANIA: SYMPHONY OF THE NIGHT

"Funnily enough, my fiancé bought me this while we were dating as a gift. I was blown away by that gesture. If I ever needed proof she was the one for me that was it!"

PAID: £0

BIO

NAME: Mark Crosby

JOB: Golf coach and carer

ESTIMATED VALUE: £25,000-28,000

FAVOURITE SYSTEM: Mega Drive

FAVOURITE GAME: *Suikoden 2*

"I DOUBT I'LL EVER SPEND OVER A THOUSAND ON AN INDIVIDUAL GAME, BUT ANYTHING UNDER THAT I'LL NEVER RULE OUT"

Hitting the reset button

Readers take us through the retro keyhole

Mark Crosby has made several attempts to build his game collection. "I started collecting retro the moment I received my first console (Sega Master System) and game back in the late Eighties," he tells us. "I'm revisiting retro and collecting for the third time, although this time I have the focus and maintained discipline that was errant from my teenage years."

Mark admits that it's not always been plain sailing for him and he's certainly made a few mistakes to get to the £28,000 collection he has today… "I've made some grave errors along the way having sold off and traded *Pocky And Rocky 2* and *Super Turrican 2* for a copy of *Tekken 3* on the PSone." Ouch! "In fairness, I wasn't to know how the value of these games would increase."

In 2012, Mark hit the reset button and began afresh. "I'm in adulthood, and I've become a little more avarice with my stockpiling of retro games and it amounts to what I have on display today."

Unsurprisingly, most of Mark's games tend to be complete in box, but he tells us that he will make exceptions. "You'll see me grab a game without the manual if it could be considered unobtainable," he admits. "Then I'll have to track down the booklet, so I try to spare the inconvenience and go CIB."

While he's happy to collect for any console that takes his fancy, we do learn that Mark has a weakness for a certain 16-bit Sega console. "When it comes to the Mega Drive, sure I want the damn lot," he laughs. "That childhood dream needs to be filled. Will I ever reach that goal? I'm close… but, you guessed it, I constantly branch out to other systems and there are far too many games that my budget won't allow me to collect for."

Whether you're going for a complete collection or simply wanting specific items, the high price of games at the moment certainly seems to be putting some off. We're keen to hear Mark's thoughts on the subject… "In my opinion it's never too late to start collecting," he concludes. "It can be a little frustrating due to the [increases] in prices, and with age comes more wear and tear with games. It's getting even more difficult to get those games you so desperately need in grand condition to display and play! You may own as little as six games or anything upwards of 6,000 games. Either way, they're your games and your path, enjoy it!"



KNIGHTS OF THE ROUND

"One of my favourite scrolling beat-'em-ups for the SNES. Lots of nostalgia with this in the arcades, although inferior to the coin-op, I'm glad to own it."

PAID: £85



Wario Land II

"YEAH! TAKE THAT, LOSERS! HEH HEH HEH!"

#111

» NINTENDO » GAME BOY COLOR » 1998

First released in early 1998 for the Game Boy, this is the later colour version of *Wario Land II*, which surfaced later that same year – soon after the release of the Game Boy Color.

A nice feature of *Wario Land II* is that Wario is indestructible. The player doesn't lose any lives, they only have their progress slowed. Another odd facet of *Wario Land II* is that sometimes an enemy can actually help Wario, rather than hinder him.

Coins play an important part in the game, as you help Wario to collect his stolen treasure. The Black Sugar Gang, headed by Captain Syrup, has stolen all of Wario's treasures yet again and it's up to you get it back. At the end of each level, you can take part in a couple of minigames, winning these helps you unlock a treasure map that will eventually unlock a final level.

Most platform games are linear in their narrative, which, at first glance, is also true for *Wario Land II*. Playing through a level reveals secret exits, allowing the player to enter through one of these instead. Each exit alters the storyline, and completing these will in turn alter the game's ending.

Wario Land II is an enjoyable game to play. It doesn't fit in with the conventions of other platform games, which might not be to everybody's taste, but it is nonetheless intriguing. Personally, I really liked the game. I found it challenging, but not in a way that would make me want to give up. The gameplay is not what you'd expect and does take a bit of getting used to. Patience is required, as trying to defeat a boss when you can't die (which isn't as easy as it sounds) can get a bit frustrating.

MIKE FRYATT




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BACK TO THE NOUGHTIES

FEBRUARY 2000 – The second month of the new century brings us a huge number of console racers, while PC gamers engage in online warfare. It's time to hop in the DeLorean with Nick Thorpe to find out more…



NEWS FEBRUARY 2000

The popular American comic artist Charles Schulz passed away at the age of 77 on 12 February. As the creator of *Peanuts*, he'd introduced a number of beloved characters to the world including Charlie Brown, Snoopy and Woodstock, and had a peak audience of over 350 million readers. Another famous face that left us this month was the English football legend Stanley Matthews, who passed on 23 February at 85 years old. The extraordinarily fit winger had a 33 year senior career, in which he became the oldest player ever to play top-flight football in England, as well as the oldest to represent his country.

Hostilities escalated in the ongoing war between Russian and Chechen forces in Chechnya. Russian forces captured the Chechen capital of Grozny early in the month, with violence spilling over into a massacre in the Novye Aldi district on 5 February, killing dozens of civilians. On 9 February, a Russian missile in the designated safe zone of Shali killed an estimated 150 further civilians, many of whom were out to collect their pensions.

In scientific news, the robotic space probe NEAR Shoemaker (named after planetary scientist Eugene Shoemaker) entered the orbit of the asteroid 433 Eros on 14th February. In doing so, it became the first ever spacecraft to successfully orbit an asteroid.



THE LATEST NEWS FROM FEBRUARY 2000

Gamers everywhere were lining up on the grid for a host of racing releases in February 2000, with all eyes on Sony's *Gran Turismo 2* in pole position. Expectations for the sequel to the PlayStation's all-time bestselling game couldn't have been higher, thanks to months of hype, but the game delivered upon release. With a much wider variety of cars, from the lowly Mini Cooper to a host of high-powered rally monsters, the game couldn't even fit on a single disc like its predecessor. Praise was unanimous, with *Edge* awarding it 9/10 and *Official PlayStation Magazine* going one higher, remarking that it was "an incredible game which shows just how far the console has come" in a 10/10 review.

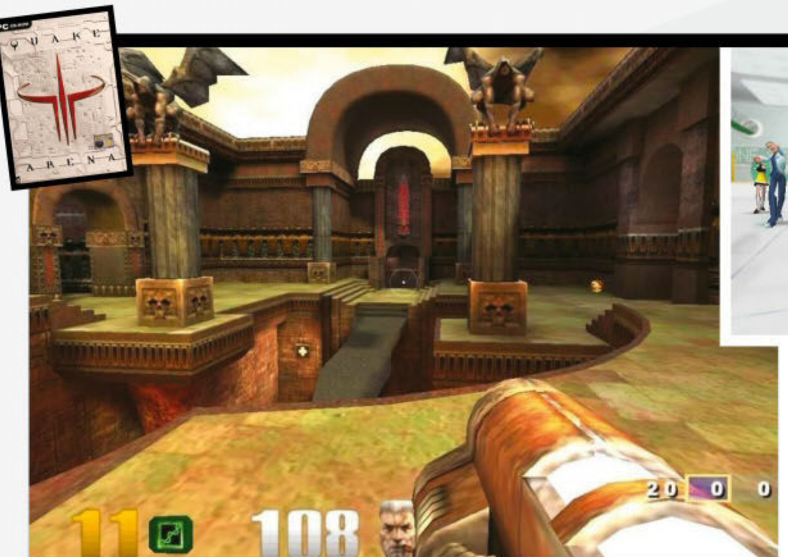


[N64] Was *South Park Rally* really a threat to Mario Kart? *N64 Magazine* thought so…

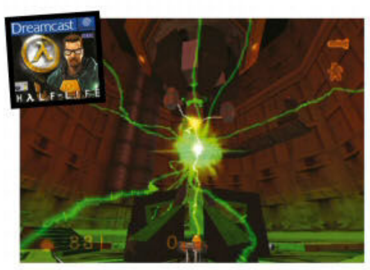
N64 owners were served with a pair of very different racers – the excellent *Top Gear Rally 2* and the considerably less sensible *South Park Rally*. *Top Gear Rally 2* received 90% from *N64 Magazine* for its challenging yet fallible CPU racers, deep features such as car damage, car upgrades and sponsorship deals, and even a random track generator. *South Park Rally* saw the foul-mouthed cartoon characters take on the kart racing genre, with items such as water bombs and farting Terence and Philip dolls that provided turbo boosts. *N64 Magazine* awarded the game 88%, saying that it was "the first racer to come close to matching the frenetic, chaotic wheel-based thrills of *Mario Kart*." That's a fair way off the critical consensus, mind – most other magazines gave it the kind of kicking that Kyle used to give Ike.

Dreamcast owners didn't have their hands on any new racers this month, but were given a huge selection of previews to look at including a conversion of *V-Rally 2*, *Sega GT*, *Stunt GP*, *Metropolis Street Racer*, *4 Wheel Thunder*, *Midnight GT* and the visually-astonishing *Ferrari F355 Challenge*. In a month of slim pickings for Sega fans, the highlight was a conversion of *Legacy Of Kain: Soul Reaver*, which was just as well-received as it had been on the PlayStation.

Ever the contrarians, PC gamers weren't on the racing bandwagon, instead choosing the delights of *Quake III: Arena* over any four-wheeled fun. You could hardly blame them, really – although the traditional single-player campaign mode no longer featured, instead replaced with a series of deathmatches against the CPU, *Quake III*'s deathmatches were absolutely second to none. *Computer & Video Games* awarded the game a full five stars and *Edge* gave it a robust 8/10, noting its superlative multiplayer but dismissing its single-player campaign, stating that "it pales in comparison to *Half-Life*."



[PC] Paranoia sets in as you wonder where all your opponents have gone.



[Dreamcast] Valve's FPS will be awesome on Dreamcast (unless they scrap the conversion at the last minute).

Conversions of top-quality first-person shooters were on their way to console owners, too. Despite the fact that screenshots weren't even available yet, *Dreamcast Magazine* offered up a four-page feature on why the conversion of Valve's PC hit *Half-Life* would be an essential purchase. On the PlayStation side of things, early images of GT Interactive's conversion of *Unreal* made their way into *OPM*. Neither of these projects would ultimately be seen through to completion, leaving these articles as close as many got to ever playing the games.

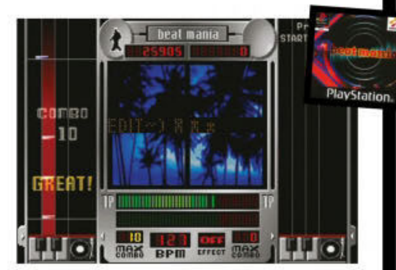
Between the post-Christmas stragglers finally making their way into stores everywhere and the final weeks of anticipation for the PlayStation 2, the news pages were a bit slow in February 2000. The most interesting story concerned the arrival of a Japanese arcade phenomenon on Western PlayStation consoles. In *Beatmania*, players were given five keys and a turntable to use in time with on-screen instructions. *Computer & Video Games* thought it was the coolest game to show up on the console in a while, but *Official PlayStation Magazine* questioned whether its Japanese success would translate to a UK audience.

One PlayStation product that wouldn't find an audience outside of Japan was the PocketStation, which was confirmed to have been quietly canned after months of silence from Sony. Much like the Dreamcast VMU, this memory card offered a small LCD screen and buttons in order to play minigames downloaded from full releases. This was evidently a late withdrawal – PocketStation support had already been advertised by high-profile games like *Final Fantasy VIII*.

Import gamers with a taste for musical action were given a bit of a treat this month, as Japanese players finally got their hands on Sega's Space Channel 5. As the TV news reporter Ulala, your goal was to rescue human hostages from the dance-obsessed Morolian aliens while fending off rival reporters in the chase for the truth behind the invasion. Dreamcast magazine was high on the game, offering it a 91% import review. The *Edge* team wasn't nearly as impressed, offering the game a considerably less flattering 6/10 score, though it was keen on Ulala as a heroine – the review remarked that "in motion she comes alive, her swinging limbs and extravagant posturing serving to instantly relegate Lara Croft to near-Bella Emberg status."

[Dreamcast] Ulala had all the charisma, but her short-lived game divided critics.

Finally, multiformat magazines were getting excited about something unusual: a forthcoming Neo-Geo Pocket Color game from Sega. Hype was building for the arrival of *Sonic Pocket Adventure*, a game that *Edge* said, "Shows why you *must* own SNK's handheld." Could this union between two powerhouses help secure both their futures? Only time would tell… *

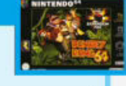


[PlayStation] A peripheral-based music game? That might catch on in Japan, but it'll never work in the UK…



FEBRUARY 2000

NINTENDO 64



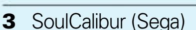
1. Donkey Kong 64 (Nintendo)
2. WWF Wrestlemania 2000 (THQ)
3. Super Smash Bros. (Nintendo)
4. Rainbow Six (Take 2)
5. Rayman 2 (Ubisoft)

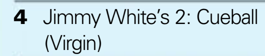
PLAYSTATION



1. Tomb Raider: The Last Revelation (Eidos)
2. FIFA 2000 (Electronic Arts)
3. Crash Team Racing (Sony)
4. Tomorrow Never Dies (Electronic Arts)
5. This Is Football (Sony)

DREAMCAST





1. Virtua Striker 2 (Sega)
2. Shadowman (Acclaim)
3. SoulCalibur (Sega)
4. Jimmy White's 2: Cueball (Virgin)
5. UEFA Striker (Infogrames)

MUSIC



1. Pure Shores (All Saints)
2. Rise (Gabrielle)
3. What A Girl Wants (Christina Aguilera)
4. Go Let It Out (Oasis)
5. Don't Be Stupid [You Know I Love You] (Shania Twain)

THIS MONTH IN…



Edge

This month, readers were treated to a series of stories from the dreaded 'crunch time' phase of development. Highlights included police raiding Shiny's offices, a developer crawling through a false ceiling to get into his office, and *Abe's Oddysee* being thwarted by a bogey on the disc.



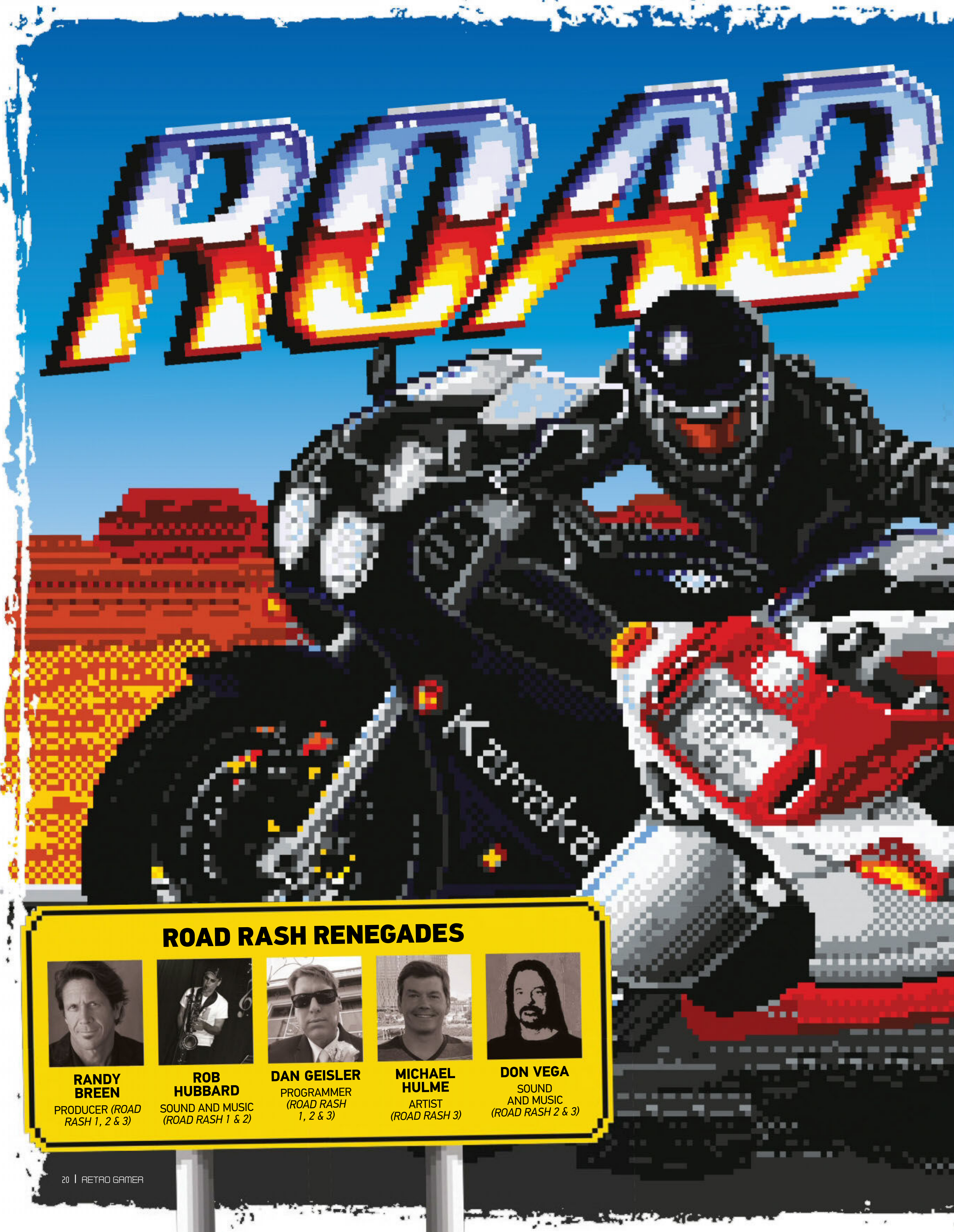
Official PlayStation Magazine

Limp Bizkit hadn't hit big in the UK yet, but *OPM*'s star interviewees were close to their first top ten single. Frontman Fred Durst asserted that a Limp Bizkit game needed to be on PS2, and that, "*Tomb Raider*'s the phattest game in the world."



Computer & Video Games

Looking into its crystal ball, *CVG* attempted to predict what gaming would be like in the 21st Century. "The future won't be about which machine has the best graphics, but who is providing the most original ideas," said Paul Davies.



ROAD RASH RENEGADES

RANDY BREEN
PRODUCER *(ROAD RASH 1, 2 & 3)*

ROB HUBBARD
SOUND AND MUSIC *(ROAD RASH 1 & 2)*

DAN GEISLER
PROGRAMMER *(ROAD RASH 1, 2 & 3)*

MICHAEL HULME
ARTIST *(ROAD RASH 3)*

DON VEGA
SOUND AND MUSIC *(ROAD RASH 2 & 3)*



Racing and fighting games used to keep to themselves, but change arrived on two wheels… and it brought weapons. Mitch Wallace brawls with the developers who brought mayhem to the Mega Drive

For many of today's gamers, the Electronic Arts logo brings to mind the war-torn maps of *Battlefield 1* or the marauding mechs of *Titanfall 2*. But long before publishing triple-A juggernauts like *Mass Effect* and *Dead Space*, a much younger – and perhaps more cautious – EA was going through somewhat of a focus shift. This pivot would ultimately give way to a trilogy of seminal cartridges that would forever expand the possibilities of the industry's humble driving game.

"At the time, EA wasn't really in the console business," begins Randy Breen, *Road Rash*'s producer. "They had done a couple Nintendo 8-bit titles, but I think it's known that there was some internal conflict regarding their appetite about moving into the console space. At the time, the memory of the Atari crash was still very present, so most of the company's focus was on PC games."

In the years following the infamous crash, EA had begun taking tentative steps back into the home console space, mostly in categories that the company identified as, according to Randy, "strategic" and in which they would "*have* the market". These areas were sports, which included the recently-released *John Madden Football* on the Apple II, Commodore 64 and DOS, and also racing, which lead to preliminary development on a game called *Mario Andretti Racing* on the NES. Some ways into the creation of this troubled title, lead programmer Dan Geisler was brought on board, and it soon became obvious that the game was moving in the wrong direction. ▶



» Some awesome-looking character concept art from *Road Rash 3*.

"The producer, [Randy Breen], who was on that project [*Mario Andretti Racing*] had just finished up *Madden* and had also done *Indianapolis 500* on the Amiga and DOS," Dan elaborates. "It was a straight sim, probably the most boring kind of racing you can get. Endlessly driving around the same f**king track for 500 miles, and in *real time*. Are you kidding me? Plus it's a sim, so you're not going to fudge it. If you wipe out, that's it. You've lost the race!"

Mario Andretti Racing was all set to follow a similar formula, but Dan, along with Randy and fellow developers Carl May and Walt Stein, began brainstorming for a different kind of racing game, one that wouldn't necessarily adhere to (possibly alienating) realism. Carl and Dan threw out quadrunners as possible racing vehicles (because of *Andretti*'s dirt track setting), while Randy, who was a Cafe Racing and Formula One enthusiast, suggested motorcycles. Dan says he also rode a bike at the time, and this would lead him to formulating the franchise's titular title. "I had taken a ride to Los Angeles to see some friends," he reminisces. "I'd driven on Mulholland Drive and thought, 'Man, If you wiped out here, you'd get some serious road rash', which is something I had gotten in the past."

And so Dan suggested *Road Rash On Mulholland Drive* for a possible name, which Randy used to pitch the game to higher-ups at EA. The name was eventually shortened to just *Road Rash*, and with the new name came a brand-new direction, one that bucked the simulation trend for something decidedly more accessible. Development also moved from the NES to the significantly more powerful and capable Mega Drive.

Dan was no stranger to virtual automobile software, seeing as prior to joining the team at EA, he worked on one of the first, if not the first, open world driving game: Spectrum HoloByte's *Vette!* for Mac and DOS. His earlier coding on that pioneering title would form the framework for the team's fledgling motorcycle racer.

"I had mapped out the whole city of San Francisco with street lights and other accuracies," Dan says. "But there was one problem with San Francisco – it's very grid-like, except for the freeways that ran over it. So I came up with a data structure to represent them. It was



» [Mega Drive] *Road Rash* was a huge success on release, eventually going Platinum. Dan Geisler has a plaque marking the achievement on his wall.



» [Mega Drive] If you've ever been to California most of *Road Rash*'s locations will be instantly recognisable.

EVOLUTION OF MOTORCYCLE GAMES



3D DEATHCHASE
1983

■ Mervyn Estcourt's stunning Spectrum racer remains one of our favourite games on the system. Taking charge of a weapon-equipped motorcycle, the aim was to weave through a densely-packed forest of trees while trying to take down rival bikes. Each new stage brings further challenges due to the increasing number of trees found there.

EXCITEBIKE
1984

■ Arguably the grandfather of modern motorcycle racers, this 1984 Nintendo classic packs quite the 8-bit thrill. Presented with simple controls and a practical side-view perspective, the game is easy to grasp and contains plenty of jumps to conquer and obstacles to dodge. You can experience it on the Nintendo Classic Mini: NES.





HANG-ON
1985

■ In some ways the spiritual and completely unofficial precursor to *Road Rash*, Sega's 1985 arcade groundbreaker is easily one of the industry's quintessential motorcycle titles. Still endlessly playable, it's a masterclass in early racing game design. Just make sure to experience it as Ryo Hazuki in *Shenmue* – Yu Suzuki would have it no other way.

JET MOTO
1996

■ SingleTrac's 1996 classic evolves motorcycles into hoverbikes with an ability to traverse a whole variety of dangerous terrain, from deep ocean water and swamps to steel contraptions perched miles above dizzying cityscapes. Removing the rubber wheels allows for some pretty imaginative track design and plenty of stomach-churning death drops.





MOTOR RAID
1997

■ Sega's 1997 Model 2A answer to *Road Rash*, this futuristic motorcycle arcade game features on-bike combat and gritty courses. Despite seeming a total shoe-in for the Saturn, the game was never ported to Sega's 32-bit console and was instead relegated to arcade exclusivity. Up to four cabinets could be connected for multiplayer action.

using an algorithm to estimate the curvature of the road, and that actually became the basis for *Road Rash*."

The game would go on to include California locations as tracks: "I used a data structure that I'd been dreaming about in the shower and perfected it," Dan recalls. "With the Mega Drive's memory, I could have done 802 miles of unique roads… I could have mapped out all of the California coast pretty accurately."

Also brought onto the team after the project was well underway was Arthur Koch, who filled the unofficial role of lead artist. "I ended up becoming involved in almost every aspect of the game," he says. "One of the problems was that everything had to fit into a 64-colour palette, and that was hard for a lot of artists to grasp. So I was getting all the art to conform to the technical requirements and training people on the in-house tools."

According to Randy, a large portion of early development was devoted almost entirely to achieving a solid driving visual. "It took me about six months to really get a good road effect," Dan adds. "And when I finally got that road effect down, people saw it and got ill, so I thought, 'Ah. That's it. It works.' It's tuned down in the final game, but I had some pretty amazing hills in that first iteration."

Also different in that first version were the initially floaty bike physics, which ended up being a point of contention with management. Yet Dan convinced the suits to give him more artistic licence. "It was kind of tense," Arthur adds. "I remember some closed-door meetings happening [with management]. I didn't get to hear exactly what they were saying, but they were talking pretty loudly, and they weren't agreeing."

Road Rash refused to be a run-of-the-mill motorcycle racer. Cops, who would chase players down and arrest them if they crashed, were added for extra racing tension. "I went down to the police department and I talked this motorcycle cop into posing for photographs," Arthur says, recalling a time before Google image searches. "I kind of find it strange that they even let me do that. I doubt today if I could talk a cop into taking a half hour and posing for some photographs!"

Road Rash's boundary-pushing was further solidified by giving players the ability to attack other riders. The introduction of combat, which was part of Randy's original pitch "as a way to add entertainment", would effectively leave the game without a neat, designated place on store shelves. And as Dan points out, this hurdle created a conundrum for EA's marketing team.

"So I'm doing all the road effects, and meanwhile Randy is fighting the battles with management. EA is very marketing and sales driven, and they get uncomfortable if they can't put something in a pigeonhole. Is this a motorcycle game? Is this a fighting game? Well, it was a fighting and a driving game, but before this, there were never any games in that genre."

"The first game was confusing for everybody," Arthur adds. "Marketing didn't really know how to place it, because it was approached as a motorcycle simulation, and then we added combat, but the producers were sim guys. Dan and I came from an arcade/action background, so there was quite a struggle between the development team, the producers, and then marketing and the executives of how to place the game and how to describe what the game was."

To Dan, the game was special, "*Hang-On* before us was a game I liked, but I thought it was limited – no hills, no punching, no kicking. I respect Yu Suzuki, but I had it in my mind that this was going to make *Hang-On* obsolete. And I think we kind of accomplished that."

Despite *Road Rash* being only several months into development, EA wanted to promote the game at the upcoming CES as a show of support for the Mega Drive, a prospect the team wasn't exactly thrilled about. As expected, it didn't show well and had to be repitched at least twice to avoid cancellation. After an extended year and a half in development, *Road Rash* released in the fall of 1991, and lo and behold, the genre-less moto wonder proved to be EA's most profitable title to date.

Before Christmas of 1991 was over, the publisher had fully committed to a sequel, and now that the new genre had been established, there was much less internal conflict regarding its place in the market. "Marketing didn't know what the f**k the first *Road Rash* was, but they loved the sequel," Dan reveals. "Once they knew that new genre had been created, they were all over it."

The timeframe to finish a *Road Rash* follow-up was indeed tight, but at least the team would be starting with a core game. "We had already gotten an

"I used a data structure that I'd been dreaming about in the shower…"
Dan Geisler



» [Mega Drive] The undulating tracks found in *Road Rash* meant it was possible to perform ridiculous jumps. Just watch how you land…

MOTO RACER
1997

■ Developed by Delphine Software and published by none other than Electronic Arts, this arcade title offers asphalt thrillseekers both traditional street and offroad tracks. The presentation is clean, the graphics are bright and simple, and the racing is downright fast. Utilising either LAN or split screen, it's especially fun in multiplayer.





EXTREME-G
1997

■ An N64 futuristic racer from 1997 that answers the question: What would motorcycles be like in a dystopian, distant tomorrow? Part *Episode I: Racer* and part *F-Zero*, Acclaim's Probe-developed speed-fest challenges the general notions of gravity, allowing players to race upside down as they battle it out for first place.

MOTOCROSS MANIA
2005

■ Opting for an entirely off-road approach, Take 2 Interactive and Deibus Studio's two-wheel release sports some relatively drab graphics. Fortunately, the game makes up for the plain visuals with some fun, floaty physics and tracks that offer players decent freedom between jumps. The third game is the series adds bike-to-bike combat, *Road Rash*-style.

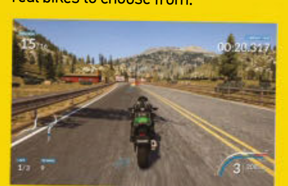


TRIALS FUSION
2014

■ This addictive title takes side-scrolling daredevil antics to an insane new level. Motorcyclists must navigate an increasingly difficult set of obstacle courses while completing challenges and setting new world records. But fair warning, the game does get infuriatingly difficult, so having a few spare controllers handy might not be a bad idea.

RIDE
2015

■ Milestone's exercise in the motorcycle arts is perhaps the pinnacle of two-wheeled driving simulations. It rides the arcade/simulation line, a la *Gran Turismo* or *Forza*, and thus doesn't alienate newbies. It also has all the graphical prowess we've come to expect from today's software, as well as plenty of real bikes to choose from.





WEAPONS OF CHOICE

Well, you're hardly going to win by playing nice…



CLUB

■ Classic, blunt and effective, nothing beats the Neanderthal simplicity of the common cosh. Easily stolen from other riders and co-opted for good ol' fashioned bludgeoning.



CATTLE PROD

■ Sometimes blunt force just won't suffice, and the stakes call for something with a tad more voltage. Charge it up, reach out and give an unsuspecting biker a suitably shocking, 'How do you do?'



CHAIN

■ Nothing says road rage better than a healthy length of rusty metal linkage. The user directions are simple: one hand stays on the throttle while the other swings a lasso of tetanus, terror and pain.



MACE

■ If there's anything that puts a damper on dangerous bike competition, it's a can of mace. Useful for keeping the freeway mosquito-free and melting the faces off riders who venture too close.



NUNCHAKU

■ Contrary to popular belief, gaming ninjas don't have a monopoly on this versatile martial arts weapon. An unorthodox tool that mixes surprisingly well with illegal motorcycle racing.



OIL CAN

■ Taking note from *Mario Kart*'s trolling banana peel, these buckets of black sludge can be dumped across the roadway to wreak havoc on the competition's traction.



CROWBAR

■ Sure, one could use this metal tool as intended and pry open a stubborn box or door. But why not experiment a little and pry the nearest rider clean off his bike seat? Robbers don't know what they're missing.

extension on the first one," Dan says. "EA asked for it in a year and it took a year and a half. Of course, EA wanted [*Road Rash 2*] for the next Christmas, which was pretty outrageous to get it all done. On the first game, we spent a lot of time on the tech, just getting the tools and doing it right and getting everything together. But with the sequel, we had all that already going from the start, so we could focus on the gameplay, the weapons, and then really enhancing the characters and upgrading the animations."

> **"Road Rash 2 was the first game in which you could beat, and get beaten, by a cop"**
> Arthur Koch

It was decided that *Road Rash 2* would leave the sun-drenched asphalt of California to explore the rest of the continental United States, with tracks set in Arizona, Vermont, Tennessee, Alaska, and Hawaii. "I was trying to maintain a certain progression through the fantasy of the product," Randy says, "which was that the first *Road Rash* was a roots-oriented thing. It happened locally, and people would run these races surreptitiously and do them in back roads where nobody knew about them – kind of a *Fight Club* thing. And they gradually expanded outward."

"They're all based on the actual locations," Arthur adds about the tracks. "Some of the artists basically reduced the colours of a photo, while others of us just took [a photo] as reference and drew on the computer."

The sequel also introduced a more streamlined menu system, a boosting mechanic for the bikes, and a chain for a second weapon. "For swinging the chain, I actually took videotape of myself," Arthur says. "That was so I could go frame-by-frame through the movements and understand the body mechanics behind the animation."

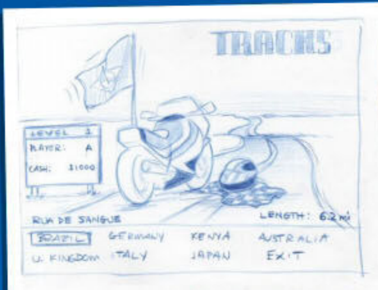
But *Road Rash 2* didn't simply introduce new content; it completely revamped the first game's take-turns multiplayer mode into something two people could play simultaneously. "Essentially, the main game was the same engine, but the big new tech was the multiplayer split-screen, which added a whole new dimension," Dan explains. "And that was a bitch. I think I spent about three months just doing that." And as Arthur adds, they were pushing the Mega Drive substantially. "It put more limitations on us because we were showing twice as much stuff on the screen, and it slowed the frame-rate down which took away from the gameplay. The hard part about the first game was going to the artists and telling them they couldn't get that much art on the screen at once. But in the second game, the split-screen made things even more limited."

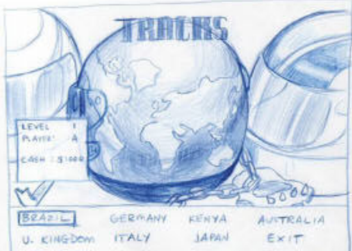
Also new in *Road Rash 2* were charming cutscenes that would play at the end of races. For example, if the cops caught a player, they would shove him into the trunk of a police cruiser, or if a player didn't get a podium finish, an old woman would deliver a proper cain-beating. "We initiated this idea of a cinematic sequence as a reward for how you performed," Arthur says. "I had to do them in low resolution to fit into memory. [The characters] were what we referred to as 'Little Dudes'. They were ten-pixel-tall animations, and those we roughly storyboarded out." Another notable inclusion in *Road Rash 2* was a pre-ESRB 'first' of sorts: Law enforcement could now take damage and also fight back, whereas in the first game they were immune to player attacks and could only bump into other riders.

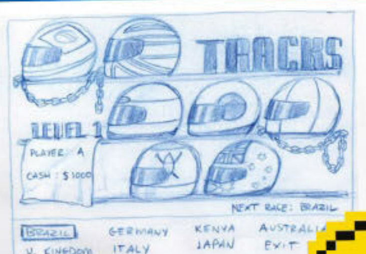
"*Road Rash 2* was the first game in which you could actually beat, and get beaten, by a cop," Arthur says. "It



















» Some concept art from *Road Rash 3*, showing off different versions of the track-select screen.

was pretty controversial at the time, because that was around when Rodney King got assaulted, and that was the first time the American public had really seen police brutality. EA also had a 'no blood' policy, so they really tried to shy away from violence in games. We actually didn't know whether or not we should keep it in."

But not everything changed in the sequel. Returning in *Road Rash 2* would be wipeouts. "From the first game, making the crashes look cool was part of the focus," says Randy. "We were making reference to *Roadrunner* and other cartoons where the villain gets beat up. Even though it set you back, it was still fun to watch." Arthur, who brought about the crashes, adds info on their origin: "I had worked on *Madden Football* and *Lakers Vs. Celtics*, and I was disappointed with the tackles and the falls and the fouls," he says. "I thought they could be a lot more dynamic. So I suggested that we devote more frames of animations to the crashes."

Road Rash 2 released in 1993 and, according to Randy, sold better than the original. But as Dan explains, the greenlight for *Road Rash 3* wasn't exactly a given. "There was a certain gap between Road Rash 2 and Road Rash 3, because, well, let's just say I wasn't fairly compensated and I was going to leave the company after *Road Rash 2*," he reveals. "They wanted me to do *Road Rash 3*, but I really thought that we had pushed the tech as far as it could go and there wasn't a whole lot more to offer. I had accepted an offer from Crystal Dynamics and EA was trying to pull me back in. I said, 'Look, I didn't get shit for this one or that one, so if I'm coming back, I want this much up front.' And they agreed. I'll tell you, though, it wasn't enough to buy a couple of bikes, and it definitely didn't pay off my mortgage."

Once back at EA, Dan was placed on a team with then-new designer Amy Hennig working on a Michael Jordan game. The project ended up not being a fit for Dan, or as he puts it, "there just wasn't that synchronicity on the team that you need". So out of that frustration came the beginnings of *Road Rash 3*.

"One day when I was a little bit pissed, I ran into Bing Gordon [VP of Marketing], and I said, 'You want *Road Rash 3?* And he said, 'Want to do it?' and I said 'Yeah, I'm thinking we could do that quicker than we'll get this other game out, and we'll beat 'em to market, and they'll go to the bargain bin and we'll go to the top of the charts.' So he said, 'Alright, I'll get your team.'"

Recruited from Cinemaware specifically for the team in question was Michael Hulme, a videogame artist with traditional animation experience with Disney (*Darkwing Duck* and *Rescue Rangers*) and Warner Brothers (*Tasmanian Devil*). "They kind of sat me down and said, 'We have directives saying this is going to be EA's last Mega Drive game, so anything you've ever learned, any trick, any technique – throw it in! I had played *Road Rash* and *Road Rash 2*, so it was just getting to know that history and then looking at it and thinking 'How can we plus this? How can we make it feel like it's part of the same lineage but really take it someplace that people haven't been before?'"

Since the Mega Drive had been relatively maxed out in terms of technology, and marketing wanted a "big new feature", it was suggested that the third game ▶



» Here's a photograph of the original *Road Rash* team looking as menacing as they possibly could.

Q&A: RON HUBBARD

The composer for the original Road Rash pulls in for a pit-stop



How did you originally come to work at Electronic Arts?
I met Mark Lewis at an awards ceremony in London and he offered me a contract to work at EA in California for a couple of months. After that finished they offered me a full-time job.

What is your favourite music track from *Road Rash* and why?
That would be title track. It had a big digitized kick snare drum and quite a wild guitar solo which I can barely remember!

What were some of your influences in regard to composing music for games?
Brecker, Corea, Mahler, Stravinsky, Parker, Emerson, Jarre, Larry Fast. And loads of others.

How did you come to be involved with the *Road Rash* series?
Simply because I worked for EA, and it was a high priority project, with good sales potential.

What was your creative approach to soundtrack composition?
Just to try to create an action motorcycle vibe, with motion as reflected with the graphics.

Regarding the Sega Mega Drive and its technical limitations, what were some of the challenges you faced while composing music for the 16-bit system?
At the time, the Sega [Mega Drive] did not seem to have technical limitations. After all, the main state of the art prior to the Sega [Mega Drive] was the NES or the IBM/Tandy computers. Having an FM chip and a dedicated Z80 with sample playback was, at the time, pretty cool. Since I was familiar with FM through the DX7, I had a pretty good idea of what it could do.

Is there anything you wish you could have done differently/anything you're particularly fond of?
Not really. For the time, the game was pretty state of the art.

How do you look back at your time working on the first two *Road Rash* games?
I always enjoyed working with Randy Breen, the producer. It's always much better if you get on and have respect for the producer and the whole team. Of course, the teams back then were much smaller and closer, so it was easier to get that sense of empathy and camaraderie.



BURNING ACROSS AMERICA

Prepare for the road trip of a life time… just bring your favourite lead pipe and a few bandages

ALASKA
ROAD RASH 2

■ Easily the most difficult track in *Road Rash 2*, this frigid environment showcases powder-capped mountain peaks and snowmen. Lucky riders may even catch glimpse of a meandering moose.

REDWOOD FOREST
ROAD RASH

■ Try not to be too impressed by the coniferous giants lining this scenic roadway, which can grow up to 350 feet in height. The turns are especially sharp here, so one false move can quickly spell disaster.

GRASS VALLEY
ROAD RASH

■ A city that dates back to the California Gold Rush, this hotspot makes for excellent racing fodder. Make sure to wave at the farmers and their livestock while burning copious amounts of rubber.

VERMONT
ROAD RASH 2

■ This cozy expanse of New England roadway is awash in reds, golds and greens – the quaint backdrop for aggressive motorbiking. Just don't let the stunning colours distract you from the occasional bump.

SIERRA NEVADA
ROAD RASH

■ One famous mountain range makes for one infamously difficult track. Brimming with brisk air, pine trees and traffic, Rashers need to be extremely vigilant regarding sudden turns and killer corners.





TENNESSE
ROAD RASH 2

■ These roads are rendered slippery by the misty mountain air, and a pesky wind doesn't make things any easier. Keep an eye out for motor homes and a fitting church in this Bible Belt dash.

PACIFIC COAST HIGHWAY
ROAD RASH

■ Taking place on the Pacific Coast Highway, this race is relatively straight-ahead with some intersections, sand clusters and decent hills to navigate.



HAWAII
ROAD RASH 2

■ Great for achieving high speeds, this dash across the USA's own Pacific volcanic island is populated with palm trees and huts, as well as an ominous – and dormant – cinder cone in the lush, tropical distance.



PALM DESERT
ROAD RASH

■ As if burning rubber wasn't enough, this location adds blistering temperature to the mix. Sun-baked skulls dot the sweltering roadway, while a gnarly jump provides a bit of reprieve from the relentless heat.



ARIZONA
ROAD RASH 2

■ Appropriately arid and filled with saguaro cacti, this southwestern stretch of dry highway awards racers with the occasional adobe dwelling and breathtaking views of the native red-orange rock formations.

> **"Randy had a high-end motorcycle that we used for a lot of the shots"**
> Michael Hulme

would go worldwide with its locales, taking players to new tracks in Australia, Kenya, Japan, Italy, Brazil, Germany, and the United Kingdom. "I painted a bunch of concept styles from the different countries," Michael recalls. "The paintings were rough concepts. They were quick, storyboard-type things, and in four days, I had ten paintings done. I tried to get a different palette for each location so they felt different. There were ten originally, and then we whittled it down to seven in the end."

Also debuting in this iteration would be new weapons, like a mace, a crowbar, and even a cattle prod, all of which players could hold onto between races, a first for the series. But perhaps most interesting of all is the fact that the game was being developed in parallel to *Road Rash*'s 3DO debut. The titles shared production assets, and as Randy puts it, *Road Rash 3* was a "hybrid product".

"*Road Rash 3* was occurring at an interesting time," he continues. "We were starting to look at the 3DO, and we were looking at other techniques for creating assets. We were also looking at the Mega-CD. It became a bridge product at some level between *Road Rash* on the Mega Drive and *Road Rash* on 3DO, which was developed with a different team. I was bringing some ideas and techniques across in both directions."

One of those shared ideas was the concept of digitized motorcycle riders, a feature that was brought on by an onslaught of new consoles and technologies. "Back in 1995, the first PlayStation was just showing up," Dan recalls, "and Panasonic came around every six months with their CDi, talking about how everything was going to be an interactive movie. So EA wanted to go with a more cinematic, realised look."

The 3DO was a next-generation piece of hardware and could handle digitised characters will relative ease, but getting those same images onto Sega's aging machine proved to be quite the challenge. "The 3DO assets had to be repurposed dramatically for the Mega Drive," says Randy. "Effectively, what we had set up was a local stunt rider in the studio, and he was in a suit that was basically colour-coded so that we could strip it from a green screen. Then the artists would reassemble those images, touch them up and figure out how to make them work on the Mega Drive."



» [Mega Drive] The *Road Rash* engine was continually pushed over all three games, with the last being particularly impressive to look at.



» Here's the original *Road Rash* team again, this time from a 2007 reunion.

Also of note were the in-game characters that would speak to players between races, who were actually all EA employees. "Most of them were people on the team," Michael says. "We dressed up as these different characters based on the locations of the levels and had a photographer come in. It was a blast! Randy had a high-end motorcycle that we used for a lot of the shots."

Road Rash 3 released in 1995 and, as Randy says, sold better than both the first and second games. "EA hosted this launch event at EA studios and brought in the press and everything," Michael remembers. "I don't know how much money they spent, but they decked out this area with motorcycles. They brought in palm trees for the Brazil level, and they had me go and do a design that went on custom *Road Rash 3* T-shirts."

So with that, the original trilogy came to a checkered finish. Of course, the series went off to burn rubber on other platforms, but it can be argued that the original spark has never quite been recreated. "It gives me the greatest joy to see people still enjoying the games and having such fond memories," closes Dan. "*Road Rash* popped up on Reddit one day, and It was just great to see how many people had wonderful memories with their brother, or their friends, or their dad who they rarely spent time with. The realisation of how many lives were enriched by this series – it's a truly magical thing." ✱

Huge thanks to Randy Breen, Dan Geisler, Arthur Koch, Michael Hulme, Rob Hubbard, and Don Veca for sharing their stories!

Q&A DON VEGA

Road Rash 2 and 3's audio maestro gives us a glimpse into the studio…



What was your creative approach to composing the soundtracks for both *Road Rash 2* and *Road Rash 3*?
To be honest, I just ripped off all my favourite jazz fusion players. This was the early Nineties, and I came up on the late Seventies fusion era: high-intensity music. I thought the high-energy fusion thing would be the perfect vibe for *Road Rash*. I'm talking Jaco Pastorius, Jeff Beck, Jan Hammer, Billy Cobham, Lenny White, Chick Corea, all those guys. I took all I had learned from them, put it through my internal 'game music filter' orchestrated it using the very limited music systems we had back then.

Were there any particular challenges with composing music on the Mega Drive?
Oh, hell yeah – lots! There was only one mono sample voice available, then you had a handful of four-op FM voices. The trick was to use your only sample voice for the most important instruments, so you had to kind of 'multiplex' the voices so only one sample was playing at any one time. I used the sample voice for the drums. Kick, snare, and hi-hat could all play, but never on the same beat. Then the bass and chordal voices were held by the four-op FM voices (which were a trip in their own right, and you could use a handful). My secret weapon here was that our awesome audio engineer, Jim Sproul, discovered that none of the other game systems were using the Z-80 chip on the Mega Drive, so we could use it exclusively for sound. It was extremely limited, though; you could only play a simple waveform, like a square wave, but you could have lots of them. I'd write a lead line in a MIDI track, then duplicate it, but I'd time-shift each MIDI track by a few milliseconds, and lower the MIDI volumes more and more on each delayed track. This way, I could create a really convincing lead guitar/synth sound.

How do you look back at your time working on the *Road Rash* games?
I have two games that I look back on and really love: *Road Rash 3* and *Dead Space*. The difference is that on *Road Rash* I was a young sound designer, so it was all new and cool. I loved every second of the project. It was nothing but fun, and I didn't feel any pressure, because it was just making cool stuff. *Dead Space* was a great project too, but I was an audio director with lots of responsibility, running a big team. Many late nights, and I missed my kids' summer vacation. My advice to young game audio folks: Don't accept a promotion past a lead. Keep making cool shit and stay away from politics and management.



Donkey Kong fact

■ Mario can stop barrels rolling down ladders on the red cabinet versions of *Donkey Kong* if he sticks his hand over the top-most rung.

Donkey Kong

» DEVELOPER: Nintendo **» YEAR:** 1981 **» COST TODAY:** £1,000+

Few arcade cabinets exemplify their contents as well as Nintendo's *Donkey Kong* does. The beautifully bespoke cabinet not only uses thematic artwork to hint at the game's gameplay, but also has bright primary colours that match its cartoon-like visuals.

Several variations of the machine exist, including a particularly desirable cocktail cabinet and dinky cabaret versions, but we're focusing on the original standard 'vanilla' upright version (interesting fact, the blue-coloured cabs available are actually a later version of the game).

Continually rising in price (get ready to pay over £1,000 if you want one) *Donkey Kong* is arguably one of the most coveted cabinets that we've featured in Arcade Perfect, and it's desirable for a variety of reasons. It's important from a historical point of view as it's the game that helped change Nintendo's fortunes in the industry, it's the first game to feature Mario and it has one of the most hotly contested high scores of all time.

And let's not forget it's a fantastic game in its own right, thanks to excellent level design, tight and responsive controls and the sort of addictive gameplay that always drags you back for one more go.

STANDOUT MOMENT **It's Hammer Time**

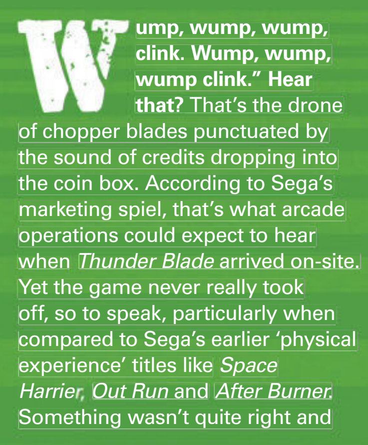


Donkey Kong looks easy, but it's anything but. The increasing number of barrels that are thrown at Mario by the titular gorilla soon begin to fill the screen and it's all too easy to get taken out by a stray barrel or fireball. Sure Mario can jump like the best of them, but jumping only gets you so far and sometimes a mistimed leap will spell your doom. Thank goodness then for the hammer that appears on certain levels and allows Mario to destroy anything that gets in his way.


Thunde

Blade

Thunder Blade was a shooter, housed in a moving simulator cab, running on Sega's powerful X Board. How could it possibly fail? Martyn Carroll finds out what went wrong



"Wump, wump, wump, clink. Wump, wump, wump clink." Hear that? That's the drone of chopper blades punctuated by the sound of credits dropping into the coin box. According to Sega's marketing spiel, that's what arcade operations could expect to hear when *Thunder Blade* arrived on-site. Yet the game never really took off, so to speak, particularly when compared to Sega's earlier 'physical experience' titles like *Space Harrier*, *Out Run* and *After Burner*. Something wasn't quite right and *Thunder Blade* never became an mainstay in the same way as those classic coin-ops. There was plenty of wumping, not so much clinking.

Some might point to the fact that *Thunder Blade* was not an AM2-developed title, and lacked the input of Sega star designer Yu Suzuki, but there's not much wrong with the game itself. Players piloted an advanced attack helicopter and basically had to blow stuff up. There were four stages in total and each was typically divided into three sections. In the first, the action was viewed from above and both the craft's speed and altitude could be altered, allowing players to swoop down to the ground and then soar back up as they unleashed gunfire and missiles on enemies. The opening stage took place in 'Skyscraper City' and the tall buildings perfectly showcased the sprite-scaling graphics as you zoomed up and down.

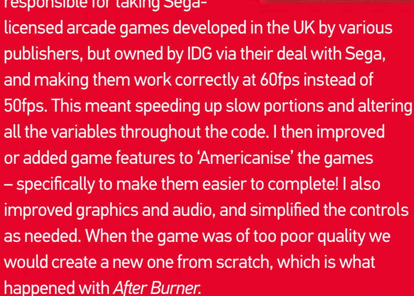
The second section was a more traditional 3D vehicle fare



» [Arcade] During the boss battles you can use the speed throttle to move forwards and backwards.

BRINGING THE THUNDER

Darrin Stubbington adapted the C64 versions for the US market



What was your involvement in the Commodore 64 version of *Thunder Blade*?
I was working in California for IDG (International Development Group) doing PAL-to-NTSC conversions of C64 games. I was responsible for taking Sega-licensed arcade games developed in the UK by various publishers, but owned by IDG via their deal with Sega, and making them work correctly at 60fps instead of 50fps. This meant speeding up slow portions and altering all the variables throughout the code. I then improved or added game features to 'Americanise' the games – specifically to make them easier to complete! I also improved graphics and audio, and simplified the controls as needed. When the game was of too poor quality we would create a new one from scratch, which is what happened with *After Burner*.

What tweaks did you make to *Thunder Blade*?
I added things like actual window shapes to the buildings instead of just stripes, removed the Pepsi advertising etc.. Doing this in a very tightly-packed character set was challenging. *Thunder Blade* was especially tough as it really pushed the hardware. Remember that almost no programmers were formally trained so there were no coding standards. In the case of *Thunder Blade* all the comments in the code were stripped out to speed up assembly of the code, so I had to get the commented code directly from the original programmer, Chris Butler.

How much contact did you have with Chris Butler during development?
I did speak to him several times whilst doing the project, but that was it. I was very impressed with his version. Chris squeezed a lot out of the hardware for sure – what there was of it!

CONVERSION CAPERS

How the home versions of Thunder Blade measured up



COMMODORE 64

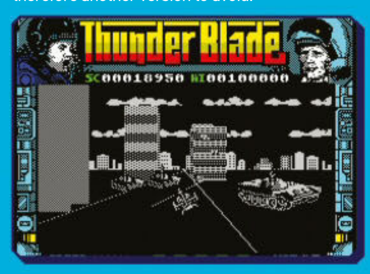
1988

■ The talented Chris Butler was behind this fantastic version that eclipsed other high-profile Sega conversions for the C64 like *Out Run* and *After Burner*. The graphics are simplistic but the sense of speed, particularly in the behind-the-chopper sections, is marvellous.

ZX SPECTRUM

1988

■ How this reviewed so well at the time is mystifying as it's a really terrible version, with unappealing black-and-white graphics making for an ugly and borderline unplayable mess. The MSX version is a straight port of this and therefore another version to avoid.

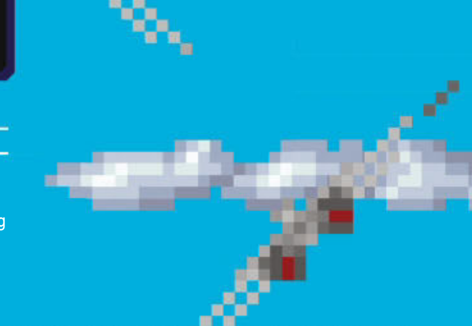




AMSTRAD CPC

1988

■ The CPC version shares its code with the Spectrum game, but the graphics benefit from some colour so you can actually see what's going on. However, it plays a fair bit slower than the Speccy version which drains away any fun the gameplay has to offer.





ATARI ST

1988

■ This could have been so much better. It might look quite good but don't let the screenshot fool you – it plays very poorly indeed. The scrolling lacks smoothness and the controls are so loose that it makes the coin-op look like a tight, responsive game in comparison.

AMIGA

1988

■ A typical Tiertex ST-to-Amiga port. The sound effects are improved, there are a few more colours on screen (note the largely pointless panel at the top of the screen) and the frame-rate is slightly higher – which actually does improve the gameplay quite a bit.





PC/DOS

1988

■ Oh dear. Baffling controls, awful in-game music and beyond basic graphics (the buildings in stage one are just grey blocks, and the pilots at the top of the screen look like the liquid metal man from *Terminator 2*) bring this sorry PC port crashing down.

PC ENGINE

1990

■ A quality conversion from NEC that's diminished slightly by a couple of omissions: you can't control your height during the opening section of each stage, and there's no speed control at all. Other than that the game is admirably close to the arcade original.



SHARP X68000

1990

■ Another fantastic coin-op conversion for the powerful Japanese computer. This is arcade perfect, or as close as possible, with all of the coin-op's features carried over intact. The only thing missing are options to tweak the difficulty level and change the controls.





MASTER SYSTEM

1988

■ This is a fine, playable version for Sega's 8-bit system, featuring decent sound and graphics (although the 3D perspective is slightly cockeyed). Like the PC Engine version, it's not possible to move vertically during the opening sections of stages.

MEGA DRIVE

1988

■ *Super Thunder Blade* is not a sequel, as it's often classed, but an alternative spin on the original that adds some elements (there are a bunch of new bosses) and takes others away (the opening top-down scenes are all missing). Good but not great.





» [Arcade] It's hardly surprising that Sega featured the visually impressive city scene at the beginning of the game.

▶ for the X Board hardware that also powered *After Burner*. The perspective switched to behind the chopper and you flew into the screen, dodging buildings and other obstacles. The final section returned to the top-down viewpoint, only now you couldn't adjust your height. Instead, you hovered above a massive screen-filling boss and had to destroy (or avoid) its armaments. Each stage played out in much the same way, and it's fair to say that the third and fourth stages ('River Delta' and 'Refinery' respectively) were rather lacklustre. In particular, the final boss was a boring gun-wall that didn't befit its billing as the game's ultimate challenge.

In truth, though, the real problem with *Thunder Blade* was not the game but the way in which it was presented. The lead 'deluxe' model was styled on a helicopter, complete with a



» [Arcade] Flying through the caves in stage two is pretty cool, but pretty tricky.



» [Arcade] Repetition does begin to set in by the time you reach the third stage.

cockpit seat and elongated flight stick. Players swivelled left and right while viewing the action on a 20-inch monitor, but unlike the sit-down cabs for *Out Run* and *After Burner* movement was not powered by hydraulics. Instead, it worked on a simple lever system where the player physically moved the cab by moving the flight stick. It was a clever solution, and it meant that Sega could manufacture and retail the coin-op for far less than the likes of *After Burner*, but it didn't provide the 'Wow Factor' that people had come to expect from Sega's deluxe cabs. Additionally, and crucially, it was quite uncomfortable to play, with the speed throttle positioned awkwardly next to the seat so you almost had to reach behind to use it. The upright model was better as it was similar to – and exchangeable with – the upright version of *After Burner* and it had the benefit of a stick that offered force-feedback. ▶

PLAYING TIPS

How to avoid crashing down to earth in a fiery wreck

TRAINING TIME



■ The game gives you a 30-second 'training' period at the beginning of stage one. During this time enemies will fire at you and you can still be hit, but you cannot lose any lives, so use the opportunity to blaze ahead.

FULL THROTTLE



■ You are not required to destroy enemies, so to progress it's often easier to hit full speed and simply dodge their attacks. However, this is not advised in the 3D sections as it's too difficult to avoid enemy fire at speed.

VERTICAL LIMIT



■ In the opening sections of each stage, where you can adjust your altitude, it's best to remain as high as possible in order to avoid buildings and other obstacles. At height it's also easier to react to enemy fire.

NIFTY FIFTY



■ At the end of each stage it reports the number of successful hits. If you're hunting for a high score you need to be getting 50 or more hits on each stage as this rewards you with the maximum hit bonus of 500k.

ROCKET RAID



■ You are provided with an infinite supply of missiles to compliment your gunfire, however, you can only launch one missile at a time, so it is best to save them for ground vehicles such as tanks and boats.

CIRCLE MOTION



■ In the into-the-screen sections, the trick of moving in a circular motion is the best way to stay alive, as enemies will struggle to successfully target you. Just watch you don't slam into any obstacles!

Following the game's Japanese debut in December 1987, *Thunder Blade* was previewed to the press at the Amusement Trades Exhibition at London's Olympia in January 1988. The Newsfield boys were distinctly unimpressed and called it a "turkey" in the pages in *Crash* magazine. "*Thunder Blade* is outstanding to look at and listen to," they elaborated, "but its playability is severely lacking. The control method is awful and trying to control the sit-down version with its three-foot long joystick is a complete and utter joke." The game's "awkward" and "sluggish" controls attracted widespread criticism, although not every response was negative. Clare Edgeley of *C&VG* called it a "brilliant game" with "superb graphics and gameplay". However, fellow EMAP staff at *Sinclair User* were not fans and bestowed it with the "What a Fuss About Nowt!" award in its



» [Arcade] The final stage is essentially a rerun of the first, only much more difficult.

IT WAS AN INTERESTING CHALLENGE

Leigh Christian

1988 coin-op review of the year. "Nice graphics, shame about the control system," they wrote.

Curiously, US Gold's Spectrum conversion of *Thunder Blade* was reviewed in the very same issue of *Sinclair User* where it received a generous 87%. This was despite the controls being even worse on the home computer versions! Just how do you practically map movement, speed control and two fire options (guns and missiles) onto a joystick? Similarly, how do you accurately replicate a graphically-intensive game with two different 3D viewpoints? US Gold offloaded those problems onto its favoured external developer, Tiertex, which predictably struggled to find suitable answers. It wasn't an impossible task, however, as the only home computer version Tiertex didn't handle – the Commodore 64 one – turned out to be an excellent conversion thanks to some coding wizardry from Chris Butler.

The console conversions for the Mega Drive, Master System and



» [Arcade] This massive stealth bomber is one of the more memorable boss encounters.

PC Engine were generally more successfully as they tweaked the gameplay and controls to better suit the hardware. The Mega Drive version (which was a launch title for the console) was quite a departure from the coin-op – a move that was reflected in it being titled *Super Thunder Blade*. The opening sections, where you could control the copter's height, were removed completely and to compensate new mini-bosses were added to each stage, bringing the total number of boss battles to eight. This version also wisely revamped the third stage, moving it to the open ocean, and replaced the coin-op's final boss with a new guardian. As a result of the changes, *Super Thunder Blade*

BOSS RUSH

The best way to bring down the game's end-of-stage fortresses



MERMASTER

MARINE FORTRESS BA-001

■ Your first challenge is this massive aircraft carrier that fills several screens. The carrier is armed with multiple guns placements and missile hatches.

How to beat it: There's actually no need to destroy any of the carrier's weapons – you just have to reach the front of the craft – but it makes life much easier if you take some out.

MARAUDER

MOBILE FORTRESS TF-002

■ The second boss is a troop carrier running on huge caterpillar tracks. It's heavily defended, chiefly by blue energy guns that fire pulsating rings of death!

How to beat it: As before, you just need to successfully reach the front of the vehicle, at which point it will handily self-destruct. Shift the throttle to full speed and fire missiles as you go.





BLACKBIRD

MOBILE FORTRESS SRS-78A1

■ This stealth bomber is the biggest boss in the game, being both wide and long. Its body is home to many gun placements that fire fast-moving shots.

How to beat it: Once again, advance forward at speed, taking out as many of the defences as possible with your guns. You can make things easier by sticking to one side of the craft.



» [Arcade] Something close to a *Star Wars* trench run stands between you and the final boss.

was more shooter than sim, and not a bad one overall.

An almost arcade-perfect conversion of *Thunder Blade* was released for the Sharp X68000 in 1990, but in the intervening years it has been the Mega Drive version that's carried on the game's legacy, appearing on various retro collections and download services. The original coin-op had been almost entirely forgotten – at least until 2015 when it was unearthed as part of the *3D Sega Classics* series for Nintendo 3DS. In what has clearly been a labour of love, emulation specialist M2 has created the ultimate version of *Thunder Blade* that features stacks of game and control options. Not only does it play brilliantly in stereoscopic 3D, but M2 has also added an exclusive fifth stage that concludes with a boss battle against 'Grantanoff', the flying fortress that initially appeared in the Master System version of *After Burner*.

It's debatable whether *Thunder Blade* deserves such an affectionate and generous update, but it does serve to show the original game in a new, more positive light. ✱

CHAOS PRODUCER

COMMAND FORTRESS YO-SKE097R

■ The final boss is different in that the battle takes place in the behind-the-chopper perspective. It's a massive base armed with turrets and cannons.

How to beat it: You need to render it defenceless to win, so if it fires, shoot it! When you have removed the turrets a large gun appears which you must destroy quickly with missiles.



BLADE IN ENGLAND

Leigh Christian produced graphics for the Tiertex home versions



How did you end up working on the conversions of *Thunder Blade*? Were you employed by US Gold or Tiertex?

Our first contract in the industry was with Tiertex. Nick Pavis and I were 16-year-old friends at school and we sent a game we made to a few companies. Tiertex replied saying thst they liked the graphics and could we do some arcade conversions. For *Thunder Blade* I was responsible for the Spectrum, Amiga and Atari ST versions.

So everything was done remotely?

Yes, we worked from Nick's bedroom. We'd go there after school and also in our summer holidays. We were given a list of graphics to produce and when we'd finished them we'd save them to a disk and mail them to Manchester. Around 1989, we started using a basic modem to transfer the data which seemed like something off the Starship Enterprise at the time.

How did you produce the graphics for your arcade conversions of the game?

We would receive a few packs of photographs of the games in the post and copied them. We were using an Amstrad CPC originally but then moved to the Atari ST. The software we used was OCP Art Studio. I'm not sure how I managed it before the invention of the mouse!

What did you think of the *Thunder Blade* coin-op? Were you a fan?

I played it once or twice. It was an interesting innovation but I preferred *After Burner* and *Chase HQ*.

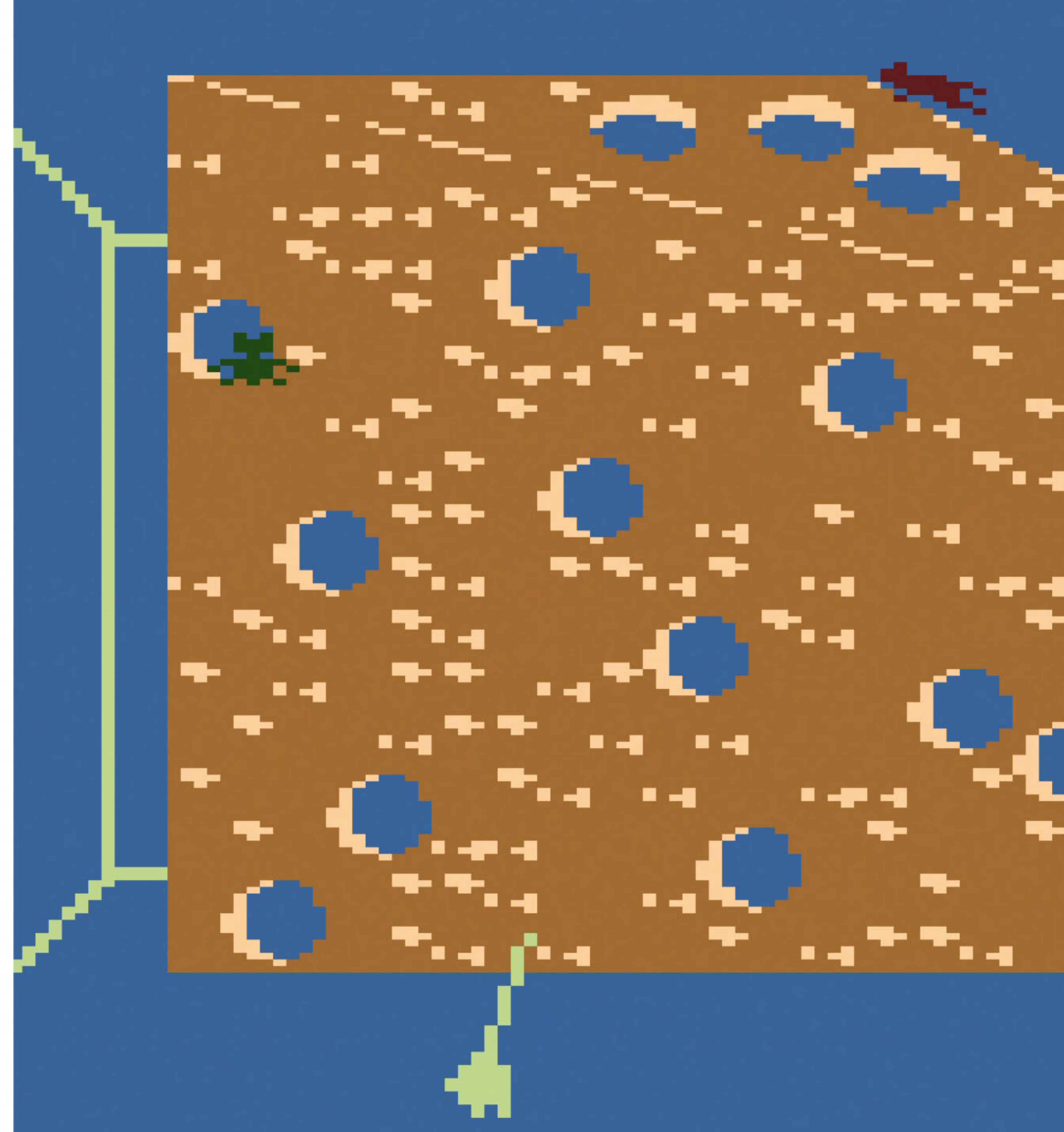
The Spectrum version of *Thunder Blade* was largely monochrome. Was that your decision?

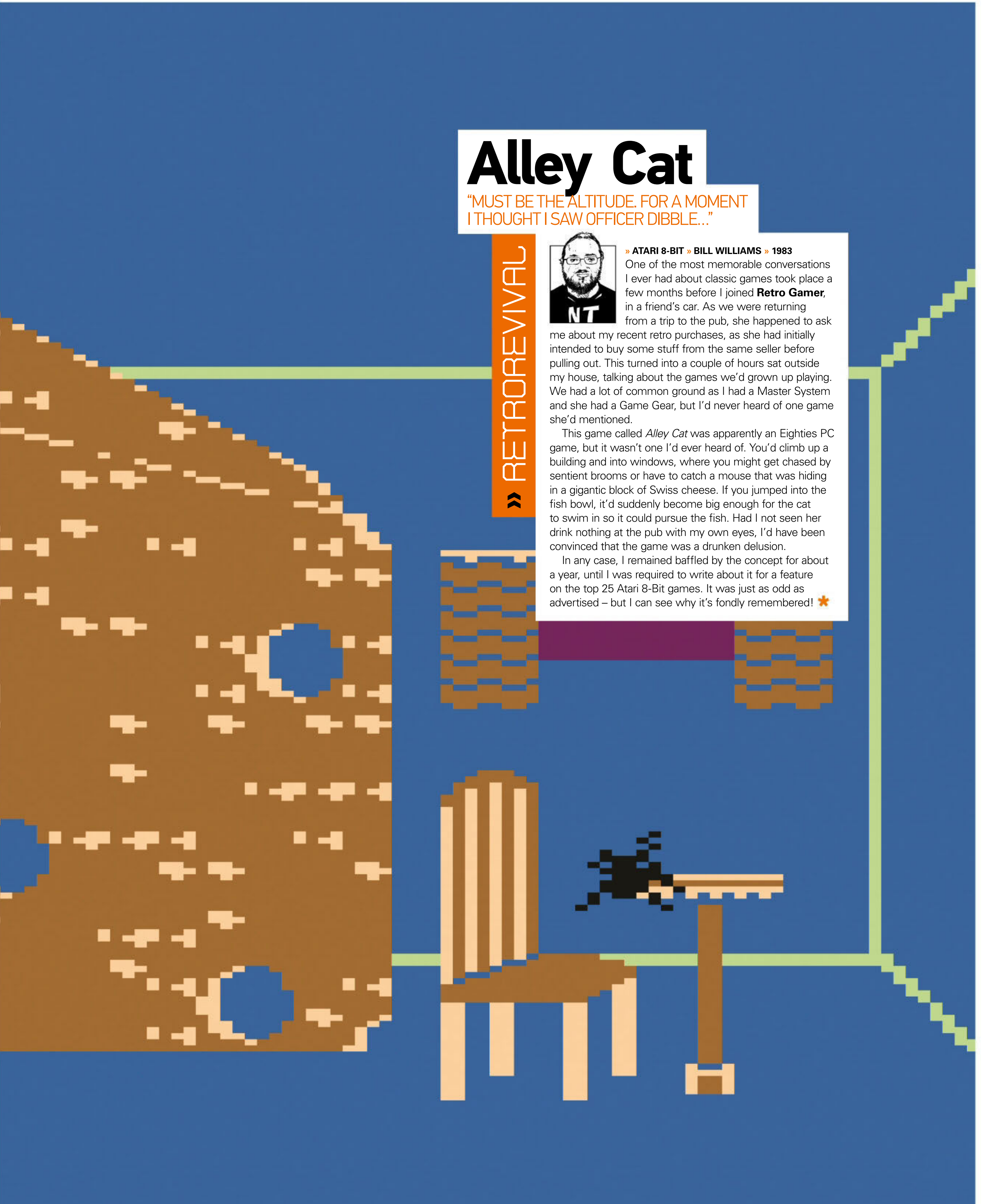
It was really just the trend and the easiest approach, in-game. The Spectrum was cool, although the colour limitations were difficult to manage, having only two colours per 8x8 block of pixels. The Amiga was the best but [it took] more work because of the huge colour range and the graphic capabilities.

How pleased were you with *Thunder Blade*?

It was an interesting challenge. Scaling 3D graphics were never going to look great on early home computers. I preferred 2D games for graphics in the Eighties.







Alley Cat

"MUST BE THE ALTITUDE. FOR A MOMENT I THOUGHT I SAW OFFICER DIBBLE…"

» RETROREVIVAL

» ATARI 8-BIT » BILL WILLIAMS » 1983

One of the most memorable conversations I ever had about classic games took place a few months before I joined **Retro Gamer**, in a friend's car. As we were returning from a trip to the pub, she happened to ask me about my recent retro purchases, as she had initially intended to buy some stuff from the same seller before pulling out. This turned into a couple of hours sat outside my house, talking about the games we'd grown up playing. We had a lot of common ground as I had a Master System and she had a Game Gear, but I'd never heard of one game she'd mentioned.

This game called *Alley Cat* was apparently an Eighties PC game, but it wasn't one I'd ever heard of. You'd climb up a building and into windows, where you might get chased by sentient brooms or have to catch a mouse that was hiding in a gigantic block of Swiss cheese. If you jumped into the fish bowl, it'd suddenly become big enough for the cat to swim in so it could pursue the fish. Had I not seen her drink nothing at the pub with my own eyes, I'd have been convinced that the game was a drunken delusion.

In any case, I remained baffled by the concept for about a year, until I was required to write about it for a feature on the top 25 Atari 8-Bit games. It was just as odd as advertised – but I can see why it's fondly remembered! *

TUSKER

At a time when System 3 was synonymous with martial arts, the firm took inspiration from a Hollywood hero. Rory Milne finds out how Indiana Jones inspired the epic Tusker

IN THE KNOW

» **PUBLISHER:** SYSTEM 3
» **DEVELOPER:** SYSTEM 3
» **RELEASED:** 1989
» **PLATFORM:** VARIOUS
» **PLATFORM:** ARCADE ADVENTURE

DEVELOPER HIGHLIGHTS

LAST NINJA
SYSTEM: VARIOUS
YEAR: 1987

IK+
SYSTEM: VARIOUS
YEAR: 1987

MYTH: HISTORY IN THE MAKING
SYSTEM: VARIOUS
YEAR: 1989

In 1987, Duncan Meech left Palace Software and took a job with System 3, where the young coder joined star developers John Twiddy, Hugh Riley and Mev Dinc. But while Duncan's early recollections of working for the firm naturally include the well-respected trio developing *The Last Ninja* and its sequel, his overriding memory of working in System 3's Hertfordshire base is of an arcade classic. "I joined System 3 when they were still operating out of a suburban house in glorious Watford," says Duncan wryly, "the house was where John Twiddy et al developed the *Ninja* series of games, but the most memorable aspect was the *R-Type* arcade machine in the garage."

But besides ninjas and the Bydo, there was also the small matter of Duncan's first – and only – assignment as lead coder for System 3, the idea for which the developer credits to his boss, who had been inspired by an action hero wearing a fedora. "I think *Tusker* was my one and only effort for System 3," he tells us. "The setting and main character were obviously an attempt to cash in on the *Raiders Of The Lost Ark* franchise; as I recall, Mark Cale's inspiration came purely from watching *Raiders*. System 3 was still concurrently developing the *Ninja* series, so doing something different seemed appropriate."



» [C64] The *Indiana Jones* influence on *Tusker* is made clear when the adventurer battles a Bedouin warrior.



» [Atari ST] The Atari ST port is on par with the Amiga offering, meaning it has a nice cartoony look to it.

But before Duncan got too far into coding *Tusker*, ably abetted by *Last Ninja* artist Hugh Riley, System 3 relocated to offices in Pinner, London. Soon after the move, modestly-titled gaming magazine *ACE* claimed that System 3's developers were picking up static electricity from the carpets there and subsequently blowing up the SID chips in their C64s – and it wasn't even their April issue. "The Pinner office was bland as hell," Duncan observes, "your typical corporate sarcophagus where inspiration goes to die. I don't recall issues with the carpet and static shocks, though!"

Dubious reports on carpets aside, System 3 did subsequently have an actual issue to deal with when John Twiddy, Hugh Riley and Mev Dinc left the company to set up on their own. "I don't think it impacted *Tusker*," reasons Duncan, "but those guys were a big loss to System 3. Although their new office was just around the corner so we still got to hang out



» [ZX Spectrum] The Spectrum version of *Tusker* was coded by Bob Pape, who created the system's astonishing port of *R-Type*.

> **"System 3 was trying to create premium products, not the six-week games"**
> Duncan Meech

frequently. There wasn't any technical overlap with *Tusker* and the *Ninja* games, and I'm sure if they had stayed Mark would have had them working on the next in the *Ninja* series."

With Hugh Riley gone, however, a series of artists – rather than an assembled team – each contributed graphics to complement the code that Duncan was writing for System 3's ambitious *Indiana Jones*-inspired title. "I don't think the plan was to go big on the art, there was just a lot of churn for various reasons. There was some thrash of people on that project, but I don't think they all worked full-time on it for the duration of development. The in-house developers where Hugh Riley and then Paul Docherty. Rich Hare and Gary Carr were contract help, as I recall. System 3 was trying to create premium products, not the usual six-week games that were common back then. Hence the team was larger than your typical C64 scroller."

In terms of the methods employed by the sequence of artists visualising *Tusker*'s cast of characters, the game's extensive weaponry, and its many items and levels, Duncan's memories have faded slightly, but the coder is certain that the game's graphics were developed on-screen rather than on paper. "I'm not sure I remember the tooling at all for this project. But I'm sure there was a level editor that I must have written since putting together those character-set based backgrounds would have been Sisyphean without one. A sprite editor was about the only other tool that was needed back in those days."

Paul Docherty – better known to fans of his C64 art as Dokk – recalls System 3's then forthcoming vigilante title *Vendetta* being his main commitment on joining the firm, but he does also have memories of himself and fellow artist Tony Hager producing some of the visuals for *Tusker*. "I came to System 3 to do *Vendetta*," Paul begins, "and *Tusker* was already well into production. Hugh Riley had created the bulk of the graphics; I only did a few screens – the Elephants Graveyard, for example. I wasn't on the game long, and only at the very end. There wasn't a team of artists – artists were brought on as

SYSTEM 3 SIZZLERS

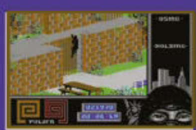
More System 3 titles that sizzled in Zzap!64

IK+



■ Archer MacLean's excellent *International Karate* is polished if unoriginal, but his sequel *IK+* matches its predecessor's presentation while adding the novel concept of a third fighter. Archer's celebrated fighting title also adds extra moves and introduces solo bonus levels. In short, it's superb.

LAST NINJA 2



■ Although a breakthrough title, *The Last Ninja* requires pixel-perfect actions and has pretty complicated controls. The follow-up addresses these minor faults while differentiating itself further with an Eighties New York setting, but its puzzles are just as challenging as its predecessor.

MYTH: HISTORY IN THE MAKING



■ While it's perhaps a little too challenging for its own good, there's something about *Myth* that encourages continued play. As well as combining platforming, brawling and puzzling with a wealth of colourful legends, *Myth* also impresses with accomplished animation and visuals.

VENDETTA

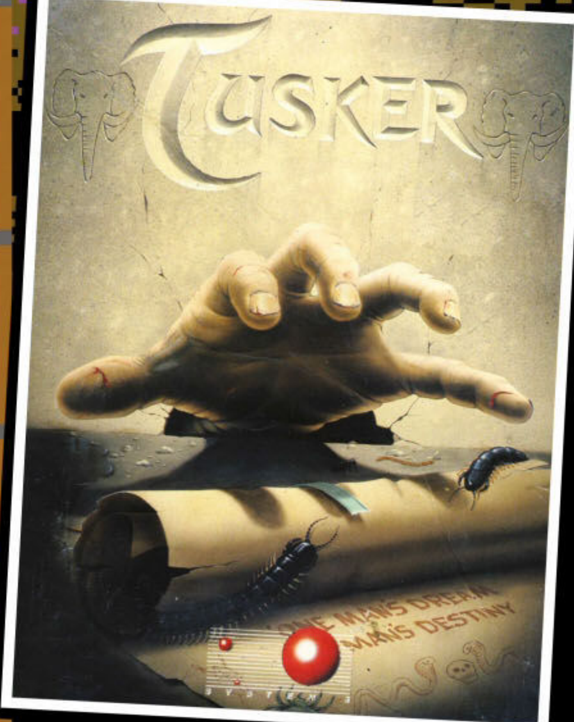


■ At first glance, *Vendetta* resembles *Last Ninja 2*, but the games play very differently. Stan Schembri's rescue mission title replaces martial arts with machine guns, and, rather than puzzles, *Vendetta*'s hero makes progress by collecting evidence and acing driving sections.

TURBO CHARGE



■ The driving elements of *Vendetta* proved so popular that System 3 developed *Turbo Charge* around them. Chris Butler's violent racer plays like *Road Blasters* crossed with *Chase HQ*, but novel features like aerial opponents help the game distinguish itself.



» The artwork for *Tusker* is atmospheric, hinting at the *Indiana Jones*-styled adventuring that lies within the game.

needs emerged, with little or no overlap. Tony Hager worked with me, so that's the only time artists were working concurrently on *Tusker* that I'm aware of – unless Hugh overlapped with others. We used the screen designer John Twiddy wrote for *The Last Ninja*, which was also used for *Vendetta*."

Besides providing graphics for *Tusker*, Richard Hare also recollects artist Mat Sneap doing likewise, and Richard offers a theory on who most likely designed the title's core gameplay. "I largely worked on UI art, and some of the background art for *Tusker*," Richard explains. "Mat Sneap also contributed to graphics within the game. As for the design, I recall being given a dot matrix printout – which read a bit like a script – that described the locations and suggested gameplay elements therein. Having spoken to Mat Sneap, and somebody else who was working with System 3 at the time, we think it may have been the – now deceased – Tim Best who produced the design documentation/script. Tim Best was Mark Cale's 'right-hand man' for many years at System 3, and is credited for doing the design work on several of its games.



» [Amiga] The protagonist looks a lot more like Indiana Jones in the 16-bit versions of the game.

"Mark Cale would look at the playability and make a bunch of changes"
Jon Dean

While I can't confirm either way, that's the only person we can think of."

Mark Cale confirmed to us that Tim did indeed lay down the foundations, but he also can't remember specifics. Jon Dean came to the same conclusion, although he was keen to point out that *Tusker*'s design was a team effort. "No-one *really* designed System 3 games," Jon clarifies, "there used to be a central idea which the team would work on for a while, then Mark Cale would look at the playability and make a bunch of changes. I called it 'unintentional iteration!' It worked quite well when you look at the end products. With no shortage of technical and creative talent there, I contributed little to the design, my role was mostly to keep these guys on track, help them focus and minimise the delays caused by the 'unintentional iteration'! I also ran interference with Activision who were publishing System 3's games at that time. The initial game ideas came from a bunch of places, including Phil Harrison and Tim Best, most of the team and often Mark too. From memory, *Tusker* was one of Tim's concepts."

Based on this concept, Duncan coded *Tusker* in such a way that it would require precise positioning to pick up and place objects, and selective joystick movements combined with the fire button in order to use the game's assorted weapons. "I think the idea

INDY INSPIRED
Other notable games influenced by Indiana Jones



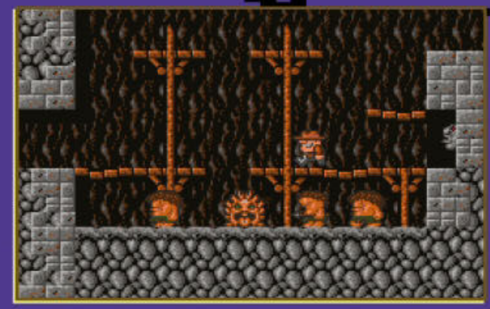
MONTEZUMA'S REVENGE
C64, 1983

■ Panama Joe – the hero of *Montezuma's Revenge* – bears more than a passing resemblance to Mr Jones, and his Aztec temple platforming features various *Indy* hallmarks like snakes, skulls and exploration. *Montezuma*'s challenge is mainly that it demands perfect timing, but each of its flick screens can be overcome with practice.



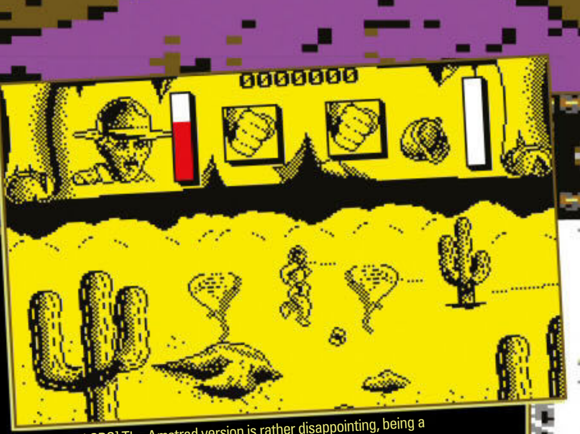
FRED
C64, 1984

■ Besides Indy's trademark Panama hat, Indescomp's daring adventurer – Fred – wears a six-shooter that can be refilled by collecting bullets when his initial round gets used up on assorted supernatural foes. The action takes place in labyrinthine catacombs under an Egyptian pyramid, which adds a nice element of exploration to proceedings.



RICK DANGEROUS
AMIGA, 1989

■ Core Design's inspiration for *Rick Dangerous* isn't subtle – most of its game is essentially *Raiders Of The Lost Ark* in sprite form, there's even a massive rolling boulder! Core's vertical platformer involves shooting opponents and blowing up obstructions, but it is the game's requirement for pixel-perfect precision that gives *Rick Dangerous* replay value.



» [Amstrad CPC] The Amstrad version is rather disappointing, being a quick and dirty port of the Spectrum release.



» [C64] Only a perfectly-aimed shot will be good enough to dispatch this giant lake monster.

was to make it complex like the *Ninja* series," Duncan theorises, "although, overall, the quality of the game mechanics was not nearly as good as the former."

An equally elaborate inventory system was also required, where rather than limiting players to carrying one object or weapon at a time multiple items and armaments could be collected and combined in order to overcome opponents or solve puzzles. Duncan puts the thinking behind *Tusker*'s inventory mechanics down to a desire to create more complicated puzzles: "I think the plan was to introduce trade-offs in what you could carry and thereby make the puzzles more interesting."

Tusker's puzzles would also turn out to be quite demanding, despite being designed around the simple premise of there being a wide variety of objects that could be placed in a large number of places, with solutions depending on the ability to work out which item should be dropped where. "The goal was to give the user as many as hours of gameplay as you could squeeze out of 64K," Duncan explains. "The puzzles required a lot of trial and error, which isn't a good mechanism but better than nothing, I suppose."

Further gameplay additions followed, including memorable bosses and a 'Lost World' stage. Duncan credits *Tusker*'s bosses to coin-ops featuring challenging mayors, and offers artistic licence as the reason for the game's Jurassic section. "I think [the bosses were added] to give the game the feel of an arcade title. And dinosaurs are cool, so why not!"

Inevitably, the size and scale of *Tusker* meant that the game wouldn't fit in a single load, in fact, multiple loads would be required in order to play *Tusker* to its completion, about which Duncan is philosophical. "It was just a function of technology. If we had a better loader and better compression we would have made it smaller, but alas that was the best we could do."

System 3's ambitions for *Tusker* also meant that the game required an extensive development period, although Duncan unfairly – if amusingly – takes responsibility for *Tusker*'s protracted gestation. "I'm sure it was due to my generally crap programming skills back then!"

On its release, *Tusker* was rewarded with accolades from the gaming press. Duncan has long forgotten these plaudits, but he feels now that comments on the game's stiff challenge, while fair, didn't take into account *Tusker*'s long-term appeal. "It did seem hard, but we were focused on giving the player a lengthy experience, so I'm sure that was the trade-off that was made. But I don't recall any reception – which is probably a good thing."

» Duncan aimed to give *Tusker* a long-term appeal for gamers.

With hindsight, Duncan's take on System 3's hit arcade adventure now takes the form of a holistic overview of the restraints on *Tusker*'s development given the C64's relative lack of power when compared to the capabilities of modern day systems. "Looking back, it's amazing you can hand-program anything that is fun in 6502 assembly code with eight sprites and 255 reprogrammable character cells. Hats off to everybody who pulled that off back in the day – including the artists and musicians who were able to squeeze something entertaining out of a machine with less memory than most desktop icons use today." ✱

Thanks to Duncan Meech, Paul Docherty, Richard Hare and Jon Dean for revisiting *Tusker*.



ARUMANA NO KISEKI

FAMICOM, 1987

■ The protagonist in Konami's Famicom title is clearly based on Indy, and the lost civilisations portrayed in *Arumana No Kiseki* are obviously influenced by Indy's adventures. Konami's scrolling platformer is quite original, however, thanks to its hero's disparate weapons and his grappling hook, which allows him to make vertical progress.



GROWL

ARCADE, 1991

■ Taito's arcade beat-'em-up has forest rangers fighting poachers – with the twist that one of the rangers bares a striking resemblance to Indiana Jones! Backstory aside, *Growl* is a satisfying brawler with hoards of generic opponents to pummel, shoot and blow up. Predictably enough, the 'Indy' character is strongest with his fists or when using a whip.



WINDJA…

Snap on your spandex beachwear and grab the nearest pair of wraparound shades, as Nick Thorpe pulls out the Frisbees for a look back at Data East's sun-drenched multiplayer classic

It's not often that we feel the need to clarify the genre of a game in the opening sentence of a feature, but *Windjammers* (or *Flying Power Disc* in Japan) is a sports game. We say this because *Windjammers* is a sports game like *Speedball 2* is a sports game, in that it's not a representation of any sport we recognise – rather, it's a hybrid of different sporting concepts that makes for a unique experience. However, rather than looking to the future like so many alternative sports games, Data East's graphic and sound artists gave the game a distinctly Nineties vibe featuring bright colours, lots of sunglasses and even TV-style presentation.



» [Neo-Geo] A lob shot has the disadvantage of allowing your opponent to charge an easy special.

Windjammers is a hybrid of the obscure game of Frisbee tennis and the perennial arcade attraction of air hockey. The two players face each other across a court divided by a net, and try to throw a flying disc past their opponent to score points – three points for a yellow goal and five points for a red goal. It's also possible to score two points by throwing the disc to the ground on the opponent's side of the court. Players can't move while they have possession of the disc, but the disc can bounce off the court's side walls (and occasionally central barriers). The game is played over the best of three sets, and a set can be won by either reaching a predetermined score first, or having the most points when the time limit expires.

It sounds simple because it is simple. The *Windjammers* team, led by Takaaki Inoue, programmer of games such as *Bloody Wolf* and *Two Crude Dudes*, managed to create a game that most players can get the hang of inside the space of a single play. However, there's a great deal more to *Windjammers*. For a start, the game offers six courts with varying width, goal values and obstacles, and six characters with their own characteristics including running speed, throw power and dash power. Then there's the fact that each of the characters has their own special throw. These are each difficult to block for a variety of reasons – for example, Steve Miller's special makes the disc cling to the walls, requiring you to travel across the court if caught wrong-footed, while Gary Scott's attack is a very fast throw where each wall hit alters the angle of the disc.

MMERS

DISC-O-TECH

Want to get better at Windjammers? Here are five important bits of advice...



FAST THROWS

■ The longer you hold the disc after receiving it, the slower your eventual throw will be, so be ready to throw as soon as you catch the disc if you want to keep your opponent on their toes. If you time it perfectly, your character will shout and the disc will gain a speed trail.



CURVED THROWS

■ Before you hit the A button, you can produce a curved shot by rotating the joystick in a half-circular motion, ending on the direction of your throw. It's possible to throw your opponent off their game considerably with the directional change, especially if you still manage a fast throw.



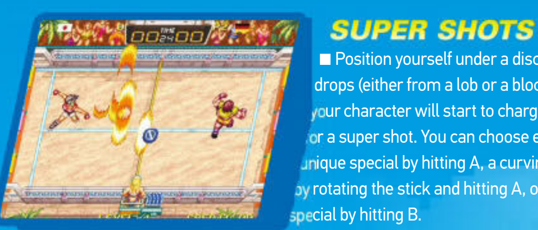
DASHING

■ If you press A and then move the joystick simultaneously while you don't have possession of the disc, you'll perform a dash, moving very quickly in the direction you chose. This is often useful for defending tricky shots, and pretty much essential if you pick the slower characters.



BLOCKING

■ If you press A while you don't have possession of the disc, you'll block for a second, sending the disc flying into the air instead of catching it. Timing is crucial – if you block a powerful shot too early, you'll be sent sprawling and need to dash to retrieve the disc.



SUPER SHOTS

■ Position yourself under a disc as it drops (either from a lob or a block) and your character will start to charge power for a super shot. You can choose either a unique special by hitting A, a curving one by rotating the stick and hitting A, or a lob special by hitting B.



"WINDJAMMERS IS ONE OF THE BEST VERSUS GAMES WE PLAYED"

Cyrille Imbert

WINDJAMMERS



» [Neo-Geo] Special throws aren't just spectacular to behold, but hard to block too.

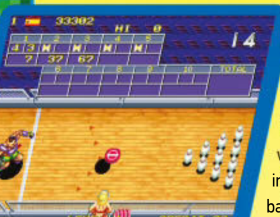
SWITCHING IT UP

These minigames provide some respite from the fast-paced action…



DOG DISTANCE

■ The goal here is to throw your disc as hard as possible before taking control of a dog, which chases it down the beach. Your goal here is to leap over sunbathers and eventually catch the disc in your mouth by jumping for it. The challenge lies in maximising the distance of the throw – how low do you let the disc fall before you finally make the catch?



FLYING DISC BOWLING

■ It's a standard game of ten-pin bowling, but with your flying disc instead of a bowling ball. This is a real test of your disc control, as the speed and angle of your throw both affect the ultimate outcome of your shots. The good news is that there are no gutters here, so you're still free to angle your shots off the side walls.

However, what's really impressive is just how much scope there is to improve on a basic technical level. Despite using just a joystick and two buttons, *Windjammers* offers you the ability to control the speed and angle of your shot, as well as whether or not you put curve on that shot. Not only that, but you can perform lobs and even use alternative generic special shots – one wild curving one and a lob which lands the disc on its side, rolling it into the goal at high speed. You'll learn when to slow the pace down, why a straight shot is sometimes better than an angled shot, and even how to use mid-court obstacles to your advantage.

Because *Windjammers* is such a surprisingly deep game, it has gained a cult reputation as a multiplayer classic over the years, with its reputation growing further as online streaming services have become more popular. Notable streamers to show multiplayer matches include the UpUpDownDown and Giant Bomb channels, with the latter awarding *Windjammers* "Old Game Of The Year" in 2013. The game has also been embraced by the fighting game community, often making appearances as a side attraction at tournaments, due to its similar competitive nature. Our own readers have voted *Windjammers* into both the Top 25 Sports Games and Top 25 Neo-Geo Games features, placing it an impressive fourth in the latter.


» [Neo-Geo] In the stadium court, scoring consecutive goals will widen your own red goal, aiding your opponent.

However, this recognition is long overdue. The few magazines that bothered to cover the game when it launched in 1994 never gave it a great deal of credit. *Famitsu*'s four reviewers scored it 28 out of a possible 40. *Edge* gave it a particularly harsh 5/10, complaining of short round times and remarking that the game "could be done just as well on a SNES or Mega Drive," while admitting that "it's playable, fun – especially against another human opponent – and action packed." With a critical reception like that, it's no wonder the game wasn't a major contemporary hit.

Another reason why *Windjammers* hasn't found more than a cult audience is that it is only available for Neo-Geo platforms. As well as the MVS arcade original, versions are available for both the Neo-Geo AES and Neo-Geo CD home consoles. Demand for

MEET THE COMPETITORS

How the six characters stack up against each other…

HIROMI MITA



THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY

STEVE MILLER

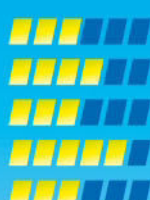


THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY

JORDI COSTA



THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY



"I WAS INSTANTLY HYPED AFTER ONE MATCH!"

Cyrille Imbert



» [Neo-Geo] If your block isn't too good, you might get knocked silly by the disc.

the game has seen prices steadily increase over the years, but those looking for the cheapest option will be pleased to learn that the CD version can be had for about £50 and doesn't suffer from the intrusive loading times often associated with the platform. The only non-SNK hardware to receive *Windjammers* was the Nintendo Wii, but this Japan-only Virtual Console release was removed from sale in 2013 so you won't be able to get a copy now. However, DotEmu will be releasing conversions for the PlayStation 4 and Vita later this year, which should hopefully expose the game to the wider audience it deserves.

Windjammers is a game which proves that not every great game is best appreciated in its own time. Data East's unfashionable choice not to emphasise the enormous sprites and fancy scaling effects that characterised the Neo-Geo was initially costly, earning scorn from the press, yet its rock-solid game design has proven timeless. While many games that made a bigger initial impression have faded away, *Windjammers* has remained relevant and endured as a cult favourite. As an added bonus, the distinctive brightly-coloured aesthetic that *was* in-keeping with the fashion of the Nineties has become a fantastic source of nostalgia as the decades have passed.

So if you haven't tried *Windjammers* yet, don't worry. Pick up a copy and give it a spin the next time you've got a second player handy – just don't blame us if you're still playing at 2:00am.

BRINGING IT BACK

DotEmu CEO, Cyrille Imbert, speaks about the forthcoming PlayStation 4 and Vita conversions



When did you first experience Windjammers?

Three years ago, when people started organising contests at the office. I was instantly hyped after one match!

Why choose to revisit Windjammers?

Windjammers is one of the best sports versus games that we played. It so simple and very deep at the same time. You instantly understand how to play, but when you start mastering it you understand that it will take a lot of effort and time to really get good. It is also fantastic to watch. All these elements make a perfect combination for today player's expectations, especially with the esports scene. That's why we felt it was the right time to bring this awesome game back.

Why is the new version only heading to PS4 and Vita?

Sony has been very supportive with us for *Windjammers*. They are fans like us and instantly understood the potential of bringing this gem back. The Vita is also a great device for retro gaming. It just made sense in every way.

Will there be cross-play and cross-buy support?

Cross-play is hard to set up but we will surely work on it. But don't expect it at release. However, we feel that cross-buy completely makes sense because it adds so much value to the game. So yes, it will be cross-buy.

Have you added anything over the original game?

At DotEmu, we always try to stick to the original spirit of the games we work on. That's what we did with *Windjammmers*. We recreated the menus, that are now in HD but with the same Nineties pink spandex/sun



» [Neo-Geo] DotEmu promises that the PS4 and Vita versions are going to be authentic recreations of the original game.

glasses spirit. But the main element we added is the fact that people will be able to compete online with ranked matches and leagues.

Will it be playable online?

Yes and we are really trying to focus on that aspect as we believe that *Windjammers* is a perfect fit for online competition and esports.

Can we expect to see more classic Neo-Geo games in the future?

We have been working with SNK for a long time, so if a project make sense for both of us and first of all for the fans, then of course there will be other projects like this.

Why do you think the game remains so popular?

This is a great question. For ten years we have been working on really awesome licenses, like *Double Dragon*, *R-Type* and *Another World*. These games are still popular and our adaptations encountered good success. But it has nothing to do with the hype around *Windjammers*. We have never seen that, it's crazy. But, again, *Windjammers* has everything: cool artistic direction, huge competitive spirit, fame amongst the fighting game community and it is very fun to watch.

LORIS BIAGGI

THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY



GARY SCOTT

THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY



KLAUS WESSEL

THROWING SPEED
CURVE POWER
RUNNING SPEED
SLIDING POWER
DEXTERITY



CLASSIC MOMENTS

Target: Renegade

» **PLATFORM:** ZX SPECTRUM » **DEVELOPER:** OCEAN SOFTWARE » **RELEASED:** 1988

Let's face it, beat-'em-ups are great, but they're only so good on your own. Think of all the best times you've had playing beat-'em-ups, and you'll inevitably dredge up multiplayer memories – that fight at the end of *Double Dragon*, assembling a full quartet of players on *The Simpsons* at the arcade, or that time you teamed up with a random stranger to take down *Street Of Rage*.

That's why *Target: Renegade* was so very appealing. You and a friend could take up a pair of joysticks and go to town on a city full of lowlife criminals, just like in the arcades! You're on one side of the screen kneeing a biker in the guts, while your friend is on the other side smashing teeth and breaking arms with a sledgehammer. Your C64-owning friend would swear blind that his version was better – "Look at the graphics, listen to that music!" – but whose house was he always actually playing at? Yours, of course, because taking turns is for chumps and suckers. *

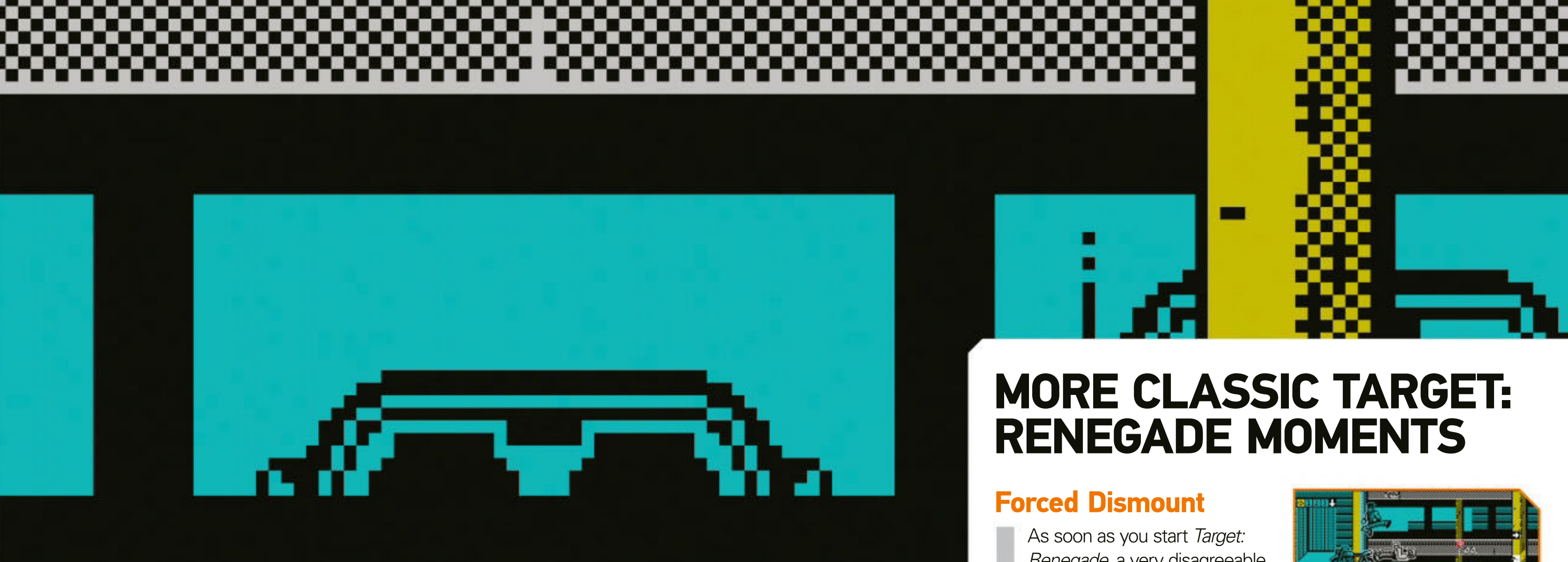


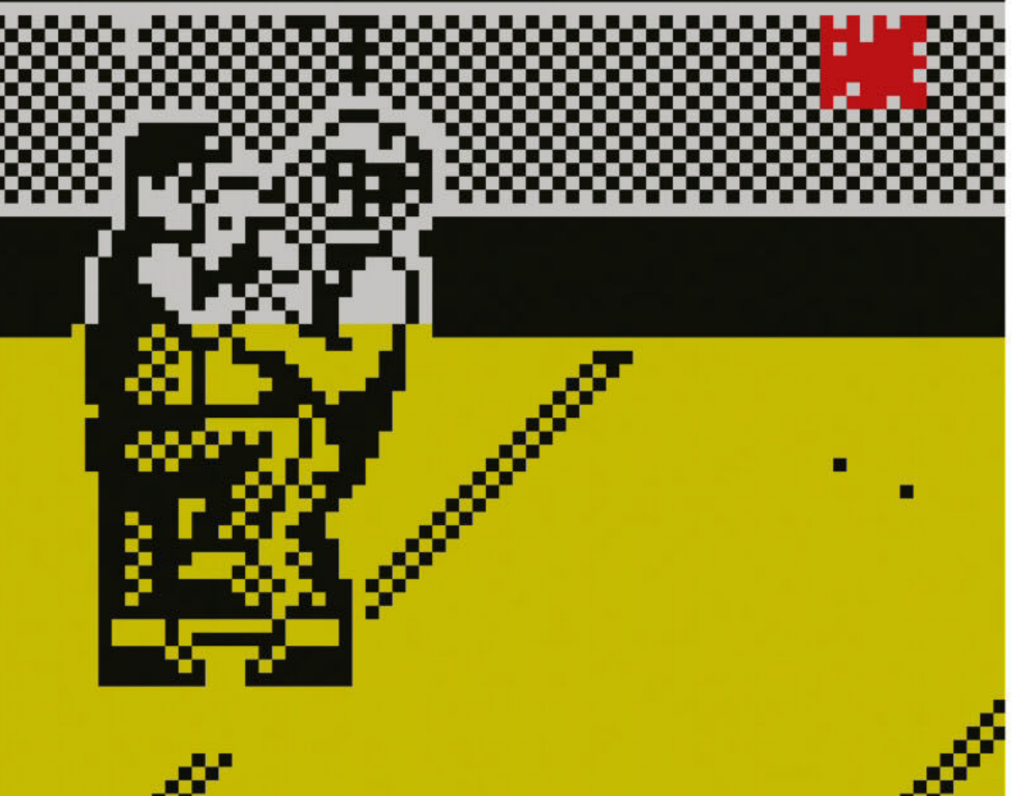
BIO

After Ocean Software had enjoyed major success with the arcade conversion of *Renegade*, it was only natural that the company would want to capitalise on the game's reputation. In order to do so, it secured the rights from the copyright holder Technos to create further versions of *Renegade* for home computers. *Target: Renegade* was a sequel that not only maintained the spirit of the original, but managed to surpass it in many ways, and critical success followed on all platforms. The same deal resulted in a further sequel titled *Renegade 3: The Final Chapter*, which was released the next year.

1P : 002500

1P
2P





MORE CLASSIC TARGET: RENEGADE MOMENTS

Forced Dismount



As soon as you start *Target: Renegade*, a very disagreeable chap will try to run you down on a motorbike. No wonder this town's called Scumville, eh? Gentle persuasion has no effect on the fellow, either, so your only option is an action movie-style flying kick, leaping over the bike and knocking your assailant backwards to the floor.

Who Needs Fists?



When it comes to difficulty, *Target: Renegade* doesn't mess around. The second stage introduces an incredibly lethal baddie who will lurk at the edge of the screen, fire his gun and then hide. It's as lethal as you might expect – one shot is all it takes to kill you, so try to make sure a criminal takes the bullet instead.

Axed!



It's always nice to turn the tables on your opponents, and being able to grab a weapon from a downed foe is a great way of doing that. One of the best moments is in the third stage, where you grab what looks like an axe and just start swinging like crazy – preferably while uttering something cheesy but cool about revenge.

Man's Best Friend?



Can one dog save the day when an army of muscular humans couldn't achieve the same task? As it turns out, that's entirely possible. These canine combatants tear across the screen as if you were some form of irresistible meat dish. Of course, to these dogs that's exactly what you are, so you have our permission to kick them in the teeth.


The Rise Of The
Delphine
Software International
AMIGA
POWER
DRIVE

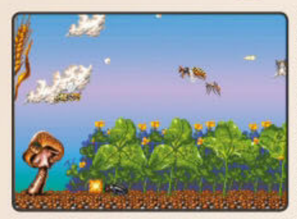


As central as the Amiga 500 is to computing in the UK, it almost never existed. Now, on its 30th anniversary, Kim Justice details how the A500 survived company shake-ups and fierce competition to become the defining computer of the late Eighties

Commodore had a bad year in 1985. The American company from West Chester, Pennsylvania lost $113 million over the course of 12 months, and a lot of its staff had jumped ship to its fierce rival, Atari – now owned by Commodore's former CEO Jack Tramiel, the man who Commodore chairman Irving Gould had fired in 1984. His replacement, an ex-steel executive by the name of Marshall Smith, had paid the price for Commodore's failings. Previously the top dog in the computer market, thanks to the C64, Commodore was now on the ropes – and its latest computer, the Amiga 1000, had floundered and sold badly. It was tough to see just what the future held for the company, and anything from a future producing IBM PC-compatibles to bankruptcy was predicted.

It is quite something to think that the Amiga's story could have ended here, before it even reached the shores where it would truly make its name. Indeed, the Amiga was so popular in the UK that it's hard not to think of it as a European computer, considering how much of the best games and best software for it

Killer games



APIDYA

1992

■ A very colourful, *Gradius*-inspired horizontal shooter where you control a deadly bee and blast the hell out of other insectoid-based ships. *Apidya* is notable for coming with a killer soundtrack, courtesy of composer Chris Huelsbeck.

BATTLE SQUADRON

1989

■ This vertical shoot-'em-up received a very poor port to the Mega Drive, but was one of the best on the Amiga – a classically difficult old school space shooter with plenty of travelling through fortresses, cityscapes and the innards of aliens.





BILL'S TOMATO GAME

1992

■ Essential Rube-Goldberg-esque puzzle game where you have a brief time limit to try and position platforms, trampolines and lord knows what else in order to get a tomato from A to B. The Bill in question is Bill Pullan, designer of the game.

BLOOD MONEY

1989

■ One of DMA's first successful titles, the folks who gave us *Lemmings* also gave us this tough shooter, where enemies fly at you from all sides. It comes with an iconic spoken intro, classic soundtrack and DMA's typically zany sense of humour.





HUNTER

1991

■ This game was pulling off an open world in 3D long before anyone else, allowing you access to multiple types of vehicle and the ability to interact with people and bribe them for information. It's considered a precursor to what *GTA* would eventually become.

Making waves

We chat with ocean's Gary Bracey about the Amiga



What did the Amiga 500 offer over earlier Amiga models?

I think price was a major feature, and the form factor was very attractive, too, as it was an all-in-one', with disk drive, etc..

What made Ocean focus on the Amiga 500?

When Commodore shared their plans with us, we believed it would be a very successful home computer and so we offered our support in terms of making compatible games for it.

Where you concerned about given *Batman* away from free in the Batman Pack?

Not at all as they paid us per-unit! Obviously we didn't receive as much for each sale as retail, but we knew that the quantity would be significant.

Did Amiga games require more development?

No, not that I recall.

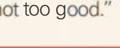
Why do you think that so many Amiga Ocean arcade conversions were so good?

Due to the processing and graphical power, we were able to emulate the fidelity of the original arcade games and so able to create very faithful emulations of those games.

came from Europe. In America, it remains something of an obscurity – the Amiga line would struggle for momentum in a slowly-recovering market where IBM PC-compatibles were gradually taking over businesses and Nintendo held a near-monopoly on videogames with the NES. It took until 1989 for the computer to receive one final major advertising push, after which it effectively ceased to exist in its own country – a far cry from what happened to the Amiga in Europe during the same period. Those people who'd worked so hard on building the system were all too aware of what was occurring elsewhere, in places like Australia, Germany and the UK. Jeff Porter, Commodore's director of product development, and the man who led the creation of the A500, recalls "All of the Apple Guys thought that the Amiga needed to be sold in high-end business computer stores! Really? It's a friggin' games machine. Sell it in Toys 'R' Us like the C64 and they'll fly off the shelf. That's one thing that Commodore knew how to do – sell low-cost home computers. So I had a battle every day with the US sales company to buy into that strategy. Fortunately, Germany and the UK, for the most part, bought into that vision lock stock and barrel – Winfried Hoffmann [CEO, Commodore Germany] took one look at the A500 and said, 'I know how to sell this baby. Give me one. I'll show you.' And he did."

> **"I had a battle every day with the US sales company"**
> Jeff Porter

The man who would inherit Commodore's sad state of affairs was Thomas Rattigan, former CEO of PepsiCo. Thomas' main aim was to cut costs and bring Commodore closer to profit, but also to oversee new plans for the Amiga line that would keep it going. The solution, as announced by Thomas in January of 1987, was to introduce two new computers – one of them, the Amiga 2000, was a high-end model, a powerful machine built for businesses and those who wished to create. The other was the low-end model, entirely catered towards the home market with the requisite power at a competitive price – this computer would be the Amiga 500. Jeff Porter would head up the production of the A500, in spite of protests from the original Amiga team. "The biggest challenge was that the guys that built the A1000 thought I was 'killing their baby'. It was already dying. After investing $55M and only selling 77,000 machines, the ROI (return on investment) was not too good."





» [Amiga] Console owners would jealously look at the excellent *Xenon II*. At least until they got their own versions…

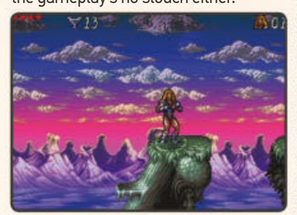




LIONHEART

1993

■ Thalion's hack-and-slash is a pretty good contender for the title of prettiest game on the Amiga, with beautiful worlds that are still striking to this day. With lengthy, involved levels and a whole load of enemies to encounter, the gameplay's no slouch either.





MOONSTONE: A HARD DAYS KNIGHT

1991

■ An RPG for as many as four players, where you try to find the keys to the kingdom. One of the more unique Amiga exclusives, and also one of the goriest too – there's no end of heads and limbs flying all over the shop.

PROJECT-X

1992

■ A frenzied shooter by Team17 that's quite possibly the most difficult of all the Amiga shooters. The challenge was such that most people couldn't manage to get further than the second level. There is a special edition that tones the challenge down somewhat.





TURRICAN II: THE FINAL FIGHT

1991

■ This is arguably the greatest entry in Rainbow Arts' classic series of action platformers, filled with lengthy levels and secrets. Despite appearing elsewhere, Amiga *Turrican II* is the only proper 16-bit version of the game.

WAXWORKS

1992

■ A dungeon crawler where you travel through time in order to break a witch's curse. Well remembered not only for its level of difficulty and the atmosphere of its surroundings, but also for the still somewhat scary lo-fi brutality of its death screens.





» [Amiga] *Lemmings* was a huge success for Psygnosis and it soon had DMA Design creating sequels and add-on disks.

The main difference between the A500 and the A1000 was in the streamlined design – the A500, much like the earlier Commodore 64 and 128, would have an integrated keyboard and external 'brick' power supply. In most other ways, however, the insides of the 500 were similar to the original A1000, with the same 512K memory out of the box and Motorola 68000 chipset. The big difference between it and the A2000 was expansion – the A2000 came with several slots for the likes of Video Toaster cards and extra floppy drives, whilst the A500's expansion capabilities were mostly limited to upgrading the RAM. But this fit the A500's streamlined philosophy – it would have everything a user needed out of the box, with all possible upgrades being completely optional. It was also considerably cheaper for Commodore to produce. "Because I came from the Commodore side of things, I knew Commodore's manufacturing very well," Jeff elaborates. "External brick power supplies were super cheap. Integrated keyboards were super cheap. Two-layer motherboards were super cheap. I got MOS Semiconductor (Commodore's chip fabrication division) to put the chips in plastic packages and improve the yields. And I knew the speed of all of the equipment in the factories, so I optimised the component selection to never have a bottleneck in the production line. Bottom line: Costs for the A1000 at $600+ got reduced to $200 for the A500, thanks to me! We sold it for $400, and street price was $500. That's pretty amazing margins, and the rest is history."

In spite of much-needed production improvements, there was always a level of disarray back home

Pushing pixels

We have a chat with Ocean's graphic artist, Simon Butler



What was it like creating graphics on the Amiga, after moving from the 8-bit systems of the time?

I recall it was a shock to the system to have so many colours and for sprites to be so much bigger after the horrible constraints of the 8-bit machines. It took a bit of getting used to, but it was just another part of the learning curve. I know that I relished the opportunity to push the animation a lot more than I had previously. That was great fun.

What art packages (if any) did you use and how effective were they?

It was the standard, Deluxe Paint. It did everything a games artist or even a hobbyist could ever require. I was still using it long after I had moved onto PC titles and was only forced to move onto another package many years later in order to retain a contract. To be honest, I was marginally proficient compared to a lot of people, and when I see some of the artwork created by today's artists it takes my breath away.

What companies managed to get the best out of the Amiga in terms of visuals?

I suppose the first name you think of is Psygnosis. They really did push things graphically, but for me that was also their main fault. I saw them as being the perfect example of style over substance. The Bitmap Brothers were also a team that truly stamped their own graphical style across every title they developed. There were some amazing graphics during the 16-bit era, but benchmark teams? Psygnosis and the Bitmaps.

Which of the Amiga games that you worked on are you most proud of?

It would have to be *Addams Family*. It's the game I enjoyed working on most in my entire career. Great team, amazing design and freedom to do whatever I wanted. Fantastic times.

Why did you return to the Amiga in 2012 to start work on the *Sqrxz* series?

Money, pure and simple. Being a 2D pixel pusher I have painted myself into a very small pixelated corner of the industry where I have struggled for long periods without work. In 2012 I was approached to do some pixels for a game I knew nothing about called *Sqrxz*. It was quick, cheap and cheerful and, over the years, I have been called upon to change the graphics for a variety of versions.



AMIGA 500



Amiga all-star

C64 maestro, Andrew Braybrook, on moving to Amiga



What was it like moving over to the Amiga 500 after working on the Commodore 64?

Short answer: it was fantastic. I'd owned an Amiga A1000 at home for two years before I started writing games for the Amiga, on an A500. I could see what people were doing on it and had been learning 68000 assembler programming in preparation. Instead of getting three 8-bit registers and 16 preset colours I was going to get 16 32-bit registers and a palette of 16 or 32 colours from my own selection of 4,096. The CPU was also eight times faster and the instructions were much more functional. It was like the driver of an old Ford Anglia waiting for his Lamborghini to arrive.

How do you feel the Amiga enhanced your games?

Firstly we could visualise more clearly what we wanted to show in the games. We'd been working with various colour limitations on the C64, as well as memory limitations. We only had space for about 192 sprite images so we were always hitting the buffers there. The Amiga had 512K of RAM, which was also all video RAM so although the code was bigger on the Amiga, it was a lower percentage of the total space. The sound was also more controllable because it was playing real samples, and we had an extra sound channel.

What was it like to code compared to the home consoles of the time?

The home consoles were still technologically on a march. Rod Mack was working on our football game on the SNES, which could do more tricks with the playfield (rotation, scaling). Also, the consoles held on to character modes that the C64 had, and that arcade games had used so well. All platforms tended to have a software and hardware development kit, so they were getting more expensive. Being locked to bitmap modes on the Amiga, although it gave a lot of freedom, meant that the screen was much bigger (typically 16K), and needed a lot of attention.

What's your favourite Amiga 500 game by another developer?

Turrican II for sure. The Factor 5 guys pulled out all the stops, with Chris Huelsbeck doing seven-channel music, hardware sprites aplenty, ingenious scrolling technique that they shared with us for *Uridium 2*, big play area, great playability – very nice.

> "The Amiga, like the C64, was a games machine"
> David Mowbray



» [Amiga] *Captain Planet* may not be a very good game, but he was a good name to have on an Amiga bundle.

that would throw things off track and frustrate Commodore's world-renowned engineers."UK and Europe got it," Jeff says. "The US did not. It should've fired all the Apple execs that didn't know how to sell a $500 games machine, and given the product to the C64/C128 sales guys that sold computers by the semi-trailer-load to retail." Thomas Rattigan's announcement of the new Amigas was just about the last thing he did before inexplicably being fired by Irving Gould, who then took over the CEO job from his home in the Bahamas. While there was always trouble on the home front, Commodore's international hubs were largely run autonomously, only ever seriously communicating with Commodore HQ a couple of times a year. And so, Commodore's UK hub enjoyed a comparatively serene existence – it hadn't topped the market up to this point, but the C64's sales were enough to make it one of the most popular computers on the market. As the last generation's micros wound down, Commodore's European divisions were eager to get the new Amigas out there, believing them to be more than capable of getting the top spot. It wouldn't be straightforward, though – the Atari ST had successfully penetrated Europe, becoming the leading 16-bit computer on the market. STs were selling well in the UK. More than that, Atari had both created a market for the ST in France that it would never let go of, and overtaken Commodore in West Germany – once Commodore's European stronghold. At this point, the Amiga had barely broke the market at all, and Atari had enjoyed a huge head start in the region – overhauling Atari's ST certainly wasn't going to happen overnight.

Looking at the main statistics, the Amiga and Atari ST are very comparable, with both computers based on the Motorola 68000 microprocessor. Indeed, when you consider that most computers were marketed based on memory at this time and Atari was already offering 2MB and 4MB ST models before anybody else, it could be said that the ST – in this very sellable regard – was the more powerful machine. But the Amiga had a couple of tricks up its sleeve that, before too long, would start to show the difference – it's 'Agnus' chip was very powerful, and, in particular, included a dedicated blitter that could run graphics routines without any strain on the computer's main memory, and a copper chip that allowed for multiple video resolutions and colour depths to happen on the same screen. The main video processor ('Denise') could split the screen area into multiple bit planes, allowing for as much as 32 unique colours on the screen at

» [Amiga] Team17's frenetic *Alien Breed* from 1990 was one of many games that defined the Amiga 500.

once. David Mowbray, previously a programmer at Flair Software, explains how this benefited games: "The Amiga, like the C64, was fundamentally a games machine. The machine was just more friendly [than the ST] when you're making a game – even on the screen itself, everything was separated onto different Bitmap planes, so, for example, you could have 16-colour art but have one of the planes just for your parallax layer."

Alongside Agnus and Denise was the third chip – 'Paula', which was responsible for sound and contained four sample-based sound channels, wholly different to the Atari ST which relied on a four-channel AY synthesiser chip. Chris Huelsbeck, a composer who worked on games such as *The Great Giana Sisters* and the *Turrican* series, explains the possibilities. "The Paula chip was really straightforward," he begins. "Its great power was in the capability to play recorded or digitized instruments and sound effects… essentially there was nothing in terms of audio or tones that you could not get out of the Amiga – the only limitation was memory and channels, and even then on that front we found ways to enhance it." One of those ways, funnily enough, would involve the use of an Atari ST – the A500's fiercest rival was an integral part of Chris' 'seven-voice' system that seemed to, as if by magic, nearly double the amount of channels the Amiga had," Chris says. "My colleague and



» [Amiga] Odds were, if you saw *Defenders Of The Crown* running on an Amiga 500, you'd most likely try to work out a way to own one.

Trouble in paradise

Jeff Porter talks about turbulent times at Commodore



What was the situation like at Commodore before the announcement of the A500 and 2000?

Things were pretty dire. The A1000 was critically acclaimed but financially a bomb. At $1,295, it was too expensive as a home computer, and wasn't expandable enough to be a business computer nor did it have mainstream business apps. So the A500 at $500 filled the home computer void, and the A2000 filled the 'can't expand this sucker' void. Although it took the better part of a year to pivot that way… the results speak for themselves. It was the right thing to do.

As head designer for the A500, how often would you interact with CEO Thomas Rattigan?

He was relatively hands-off. Of course there would be high-level meetings where the end result was, 'Jeff and his team just need to work a little harder and faster.' I remember one meeting where him and Marshall Smith had summoned everyone from R&D both in PA and CA to West Chester. Rattigan put his feet up on the boardroom table and said, 'Marsh, what do you think the most important thing for engineering to be working on now? I think it's the cost-reduced C128D.' You can imagine the gasps coming from the Los Gatos team… 'Are you kidding me? Did he really just say that to the entire senior R&D staff of the Amiga?' Yes, he did.

Was there any perception inside Commodore that the A500 was a downgrade from the A1000?

Lots of fights with the Los Gatos crew. I kept hammering on the $500 price point at retail – $20 more for a detachable keyboard, $30 more for an internal power supply, $20 for a keyboard garage, you just blew the budget, guys! Sorry. Plus Jack and the Atari ST were just starting to eat our lunch and we had to attack with a product that could kill the ST. That last argument cleared the way with everyone at Commodore to let me build the A500.

In what ways did you feel that the A500 improved on the A1000?

Obviously the cost was the major improvement – same circuitry and same performance, but at a way cheaper price. I personally selected the keyboard – NMB real key switches… I loved that keyboard. I'm a pretty quick typer and I could just fly on that baby, that got cost reduced after the first year, but hey, the A500 was already a huge success by then to create very faithful emulations of those games.

Marketing magic

Commodore marketing director David Pleasance on the Amiga



What gave the Amiga 500 a better commercial edge over previous systems?
My belief is that it was the way we positioned our marketing – aimed squarely at out target audience – which was the slightly older child, perhaps getting ready to study for critical exams, from middle class or higher socioeconomic families whose parents wanted to be seen to be responsible enough to equip their child with the latest and best technology.

How did strike the deal for the Batman pack?
I had heard that Ocean Software had just been to Hollywood and had paid out $1 million just for the rights to use the *Batman* movie title for the game they intended to produce. So I set up a meeting with David Ward and Jon Woods (joint managing directors of Ocean) along with Colin Stokes (sales director) and Paul Patterson (sales manager).

I told them, 'I am going to make you a proposition that you will either have the balls to go along with, *or* you will send for the men in white coats to come and take me away.' I told them that I planned to produce a pack – which if they said yes to me – [that] would feature *Batman* all over the box, and that the fact that there was an Amiga 500 inside was almost incidental. I promised we [Commodore] would be spending a massive amount of money marketing and promoting the pack, in conjunction with their own marketing parameters so we had a massive joint approach.

I said, '1) I want you to give me the game exclusively in my pack for two months before you release it is as a game on its own; 2) I want to pay you very little money for it, and 3) I am only prepared to commit to 10,000 pieces.' Ocean expressed concern on two fronts: they were worried their dealers would be angry that the only way their customers could get hold of the game would be by buying a *Batman* pack [and they] had estimated it was going to cost them a further $1 million to actually produce the game, and were concerned this activity might affect the volume of games they had calculated they needed to sell in order to [make] a profit.

I explained to them that I personally felt – if the promotion was successful – the dealers would actually be delighted, as they would be selling lots of £400 packs instead of lots of £40 games. I explained that with my massive marketing budget added to theirs we would take over the retail channels completely, and I was confident they would do better overall if they decided to work with me.

Well they did have the balls to do it and the net result was, 1) Their dealers ended up much more than happy; 2) Ocean sold five times the volume they had estimated they would sell; 3) Commodore did not take just 10.000 pieces of *Batman* – we ended up taking 186,000 pieces – because that is how many Batman Packs we sold in the 12 weeks period to Christmas!!!

What was Commodore's relationship like with Ocean after that?
Absolutely fantastic. I can also say after the success of the Batman Pack I was approached by a vast number of games developers and publishers who would do almost anything to have one of their products included in [our] forthcoming packs.

Why do you think the system is so fondly remembered by gamers?
My opinion is that we released this incredible (easy-to-use) multitasking technology at exactly the right time. The world's youth were desperately hungry for something new, something which allowed them to show off and illustrate their creativity – and just take a look – all around the world we have many thousands of Amiga fans, many of them now holding senior positions in huge companies. I am so proud to have contributed my small part in this legacy.

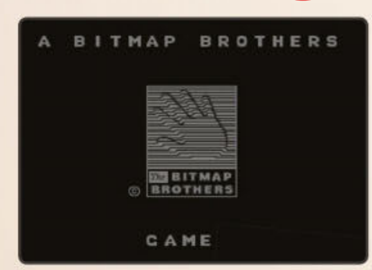
friend Jochen Hippel coded the kickass core of the [ST] CPU mixer in order to play back four-voice Amiga music on the ST. With his blessing, I ported that back onto the Amiga and it was used first in the *Turrican II Title Theme*, which to this day remains one of my best-known pieces." Essentially, a four-voice piece of music would be programmed on the ST, mixed down and then played back on the Amiga using only one of its channels, leaving three extra channels open.

Together, these chips would make up Amiga's 'Original Chip Set', or OCS for short. While the OCS had so much potential, it took time to fully realise this. The Amiga's earlier games, while flashy, were still traditional computer titles – a game like Cinemaware's cutscene-filled strategy title *Defender Of The Crown*, for example, was impressive compared to other computer games, but still very much a computer game – a strategy game, and one not very different from its Atari ST version. Arcade ports, on the other hand, were often worked on by small teams with limited time and resources at their disposal, so with the Amiga and ST both being 68000-based computers, ports of arcade titles – such as *Out Run* and *Super Hang-On* – were similar on both platforms and would not take advantage of the Amiga's features, often leading to them being described in magazines as 'ST ports'. It would take a couple of years until people would harness the Amiga's power to make original arcade-style shooters and platformers that were of similar quality, if not better than anything that could be found on consoles at the time.



» [Amiga] On the surface, Ocean's *Batman* is just another licensed game. As a pack-in title in 1989, it would make the Amiga into a superstar.

Defining developers



BITMAP BROTHERS
FIRST AMIGA RELEASE: 1988

■ Famed for hi-octane, futuristic games with soundtracks that could be club favourites, Bitmap Brothers gave us the likes of *Xenon 2*, *The Chaos Engine* and the *Speedball* series. Nearly every game that it released for the Amiga was a hit.

BULLFROG
FIRST AMIGA RELEASE: 1988

■ The land of Peter Molyneux, and home of the God game in the form of *Populous*. Not content with just that, it also released games like *Powermonger*, *Syndicate*, and *Theme Park*. Ultimately, Bullfrog was acquired by EA.





CINEMAWARE
FIRST AMIGA RELEASE: 1987

■ One of the Amiga's original big developers, Cinemaware released cutscene-heavy games with minigames and a big emphasis on story, such as *Defender Of The Crown*, *It Came From the Desert*, and arguably its best title, *Wings*.

GREMLIN INTERACTIVE
AMIGA DEBUT: 1988

■ A studio that was successful throughout the Amiga's lifespan in a wide variety of genres. It made racing series such as *Lotus* and *Top Gear* and sports games like *Premier Manager*, but arguably its most successful title was 1992's *Zool*.







» [Amiga] Games like *Turrican* proved that the Amiga 500 was more than capable of delivering arcade-like experiences.

> **"It was like a turbo C64 in how it was put together"**
> David Mowbray

Things really started to shift in favour of the Amiga in 1989, as several games showed just what power the Amiga had lurking within. Psygnosis' *Shadow Of The Beast* is a major example, using the Amiga's copper chip to create a multi-layered landscape filled with parallax scrolling that ran smoothly. Simply put, the Atari ST didn't have these tricks at its disposal – while it could handle vertical scrolling fine, horizontal scrolling required almost everything on screen to move at once, making it slow and jumpy by comparison. While the development of the original Amiga had happened outside of Commodore, the A500 was in many ways an evolution of the C64, sharing a lot of its more coder-friendly aspects, such as hardware sprites and scrolling, as well as its slick, integrated, games-friendly design. In the end, a lot of the people who had previously preferred Commodore's old system found themselves drifting towards its new machine. David Mowbray had experience with both. "The Amiga was more in the vein of what I was used to," he says. "I learnt 68000 assembly language and software sprites on the ST, and none of the hardware scrolling that I'd had on the C64 was there – it was a lot like the Spectrum, a very different way of working. Going from the ST to the Amiga was like going back home again – it was like a turbocharged C64 in the way it had been put together."

Shadow Of The Beast was one of many pioneering games released for the Amiga in 1989, a year that also saw the release of *Lemmings*, *Xenon 2*, and *Populous*. These games would become synonymous with the Amiga and would set it out as clearly the superior games machine to the Atari ST, but games alone weren't enough – the computers themselves needed to start flying off the shelves. Commodore's American HQ had largely disregarded the games market even after the launch of the A500 (Jeff: "We walked away from our shelf space at Toys 'R' Us and Sears, and that void was then filled by Nintendo and Sega…"), whereas Commodore UK was under no pretence that the A500 was anything other than a games machine – and it was the job of then-marketing director David Pleasance to maximise that He would do so with the introduction of Entertainment Packs and bundles.

A typical Amiga bundle, such as the Cartoon Classics set from 1991, would of course focus primarily on games – in the case of this example, two very popular titles in the shape of *Lemmings* and *The Simpsons: Bart Vs. The Space Mutants*, as well as a lesser-known title with a recognisable name (*Captain Planet*) – because even if a





PSYGNOSIS

AMIGA DEBUT: 1986

■ This rose from the ashes of Imagine Software to form one of the Amiga's greatest software houses, with games like *Shadow Of The Beast* and *Lemmings* to its name. Later acquired by Sony, it would take that standard onto the PlayStation.

RAINBOW ARTS

AMIGA DEBUT: 1987

■ A software house that specialised in very challenging action games like *X-Out* and the *Turrican* series. Home to some of the strongest individual coding talents of the era, it would excel either on computers or consoles.



SENSIBLE SOFTWARE

AMIGA DEBUT: 1989

■ Jon Hare's studio was renowned for its popular games, often involving tiny little people running about. Strategy game *Mega-Lo-Mania* was the first to explore the format, and was followed by classics like *Sensible Soccer* and *Cannon Fodder*.

TEAM17

AMIGA DEBUT: 1991

■ Like Gremlin, Team17 would shine in almost any genre it put its hands to – whether it was top-down shooters (*Alien Breed*), one-on-one fighting (*Body Blows*), cute platformers (Superfrog), or annelid-based carnage (*Worms*).



The inside story

Commodore engineer Dave Haynie talks Amiga 500



What was your involvement on the Amiga 500?
I was brought onto the fairly early Amiga 500 project from the 8-bit world, in 1986. I had already been learning to program the Amiga, as I bought an A1000 in 1985, not too long after they came out. We were trying to interest management in some new version of the C128, but most things were moving [towards the] Amiga at that time. So I spent most of that month learning the Amiga and A500 architecture, helping track down problems, that kind of thing.

Why do you think the machine struggled in the US compared to the Commodore 64?
Commodore marketing in the USA really had no clue how to sell the A500. It might look like an A500, but at the time the AmigaOS was more sophisticated than anything from Microsoft or Apple, so it needed a real computer store. Commodore wanted to sell in the same big department and discount stores that carried the C64, like K-Mart and Sears – doing this, of course, made it practically impossible to any computer store that wanted to carry the A500 to do so profitably. They all bought through distributors, but big national stores were their own distributors, buying directly from Commodore. And Commodore had done much the same thing with the C64: selling it originally in discount stores while it was still in computer stores. Some computer sores found the C64 being sold at a discount store for less than they paid their distributor. Commodore screwed up their own future by thinking about short-term gain in volume.

Why do you think it had so much success in Europe?
Kind of the opposite [to the USA] – they were marketed and sold correctly. Also, a different set of competition, less Apple, more smaller computers like Sinclair, Amstrad, Acorn. And an actual marketing budget… in Europe, you knew about the A500 if you read magazines or watched TV.

What's your favourite A500 game?
Marble Madness. It blew me away when it came out, and I spent lots of time testing it in the lab on new hardware. It's totally the case that, over the years, I got busier at Commodore and didn't play games much. I love computer games, but the problem is, they got so good, you could spend days solving one game.



» [Amiga] Arcade conversions on the Amiga 500 were hit and miss. The excellent conversion of *Super Hang-On* is one of the better examples.

> **"Oh well. It was a fun ride while it lasted"**
> Jeff Porter

▶ licensed game like this was not well-known or well regarded, the character, movie or TV show would be. These packages also usually contained the versions of Workbench and Deluxe Paint – which would feature on the box, albeit not as prominently as the games. All of this would be available for £359, then reduced to £299.

Many of these bundles were successful, but the one that stands above them all is the initial 'Batman Pack'. Alongside the ubiquitous Deluxe Paint II, the Batman Pack contained three games – *Batman* (naturally), *The New Zealand Story*, and *F/A-18 Interceptor*, filling the roles of the very popular licensed game, the popular arcade port, and a game that your dad would probably enjoy more than you did. But, of course, *Batman* was the main event, and quite a coup to get in such a pack – not only had the game just been released by Ocean, but 1989 itself was the peak of Batmania – the film was the highest-grossing movie of the year, and the aisles of toy stores were filled with *Batman* merch. *Batman* toys sold in their millions, and the Batman Pack would be but one part of that, with no new computer or console around to compete with it in the Christmas period. The Batman Pack truly made the A500 a star – the success of it alone brought an estimated 2 million new people into the Amiga's user base. A year that had been the computer's last hurrah on American soil ended in Europe with its coronation as the most popular computer on the market.



» [Amiga] The gameplay wasn't amazing, however *Shadow Of The Beast's* stunning visuals certainly captivated gamers.

During the Nineties, the Amiga continued to hold its ground against the 16-bit consoles of the day, further augmented by new models such as the A500+ (featuring the 'Enhanced Chip Set'), the A600, and the CDTV – a consolised A500 capable of running CD-ROMs. However, these products were beset by old Commodore issues, such as a lack of marketing sense and serious overspends on production – the original CDTV's CD-ROM drive, for example, cost 500 dollars. When Jeff Porter headed up production on a revised model, he found a different mechanism for the drive in Japan that cost $15 for similar performance. The A600 was an even greater horror show – one that spiralled somewhat out of control. "Mehdi [Ali, then-CEO of Commodore HQ] hired a guy named Bill Sydnes to cost reduce the A500… good luck!" says Jeff. "He claimed he could half the cost of the A500 and Mehdi agreed. In the end, the A300 had to be renamed to the A600 since it was *more* expensive than the A500!" A lot of this was down to events back home – as Commodore continued to lose ground, it chose to squeeze as much as it could from its existing products rather than budgeting enough money for engineering and R&D to build better models. By the time the A1200 and 4000, Amiga's 32-bit line of computers, arrived in late 1992,



it was too little too late – Amiga-based games were now being matched by games from Intel 486-based PC's, and then surpassed by Pentium-based PC's. And so, games companies who had made their name on the Amiga started to look elsewhere – leaving the new machines with precious little in the way of big titles that weren't available on the PC. Those in the corridors of power hardly helped matters. "Mehdi introduced the A1200 the day after Thanksgiving for only a few dollars more than the A600," Jeff says. "He had a warehouse full of A600's, and no inventory of A1200's. Commodore nearly died that Xmas. He did it again the next Christmas and that was all she wrote."

For those in Europe, where the Amiga had enjoyed success, it was frustrating – despite its best efforts, the team couldn't stop Commodore as a whole from going down on 29 April 1994. "In spite of the fact that I should have had some major clout from the A500, they didn't listen to me," Jeff laments. "Oh well, it was a fun ride while it lasted." It's fair to say that the majority of Commodore's engineers who lost their jobs that day shared those feelings. Commodore UK, successful enough to not be liquidated, pooled its resources together and tried to take over the company as a whole. It was seen as the frontrunner, and at several points it seemed like Commodore UK's takeover (which would involve a name change to Amiga) was a done deal – but a long and drawn-out process ended with computer manufacturers Escom buying the Amiga in 1995, and Commodore UK's closure shortly thereafter.

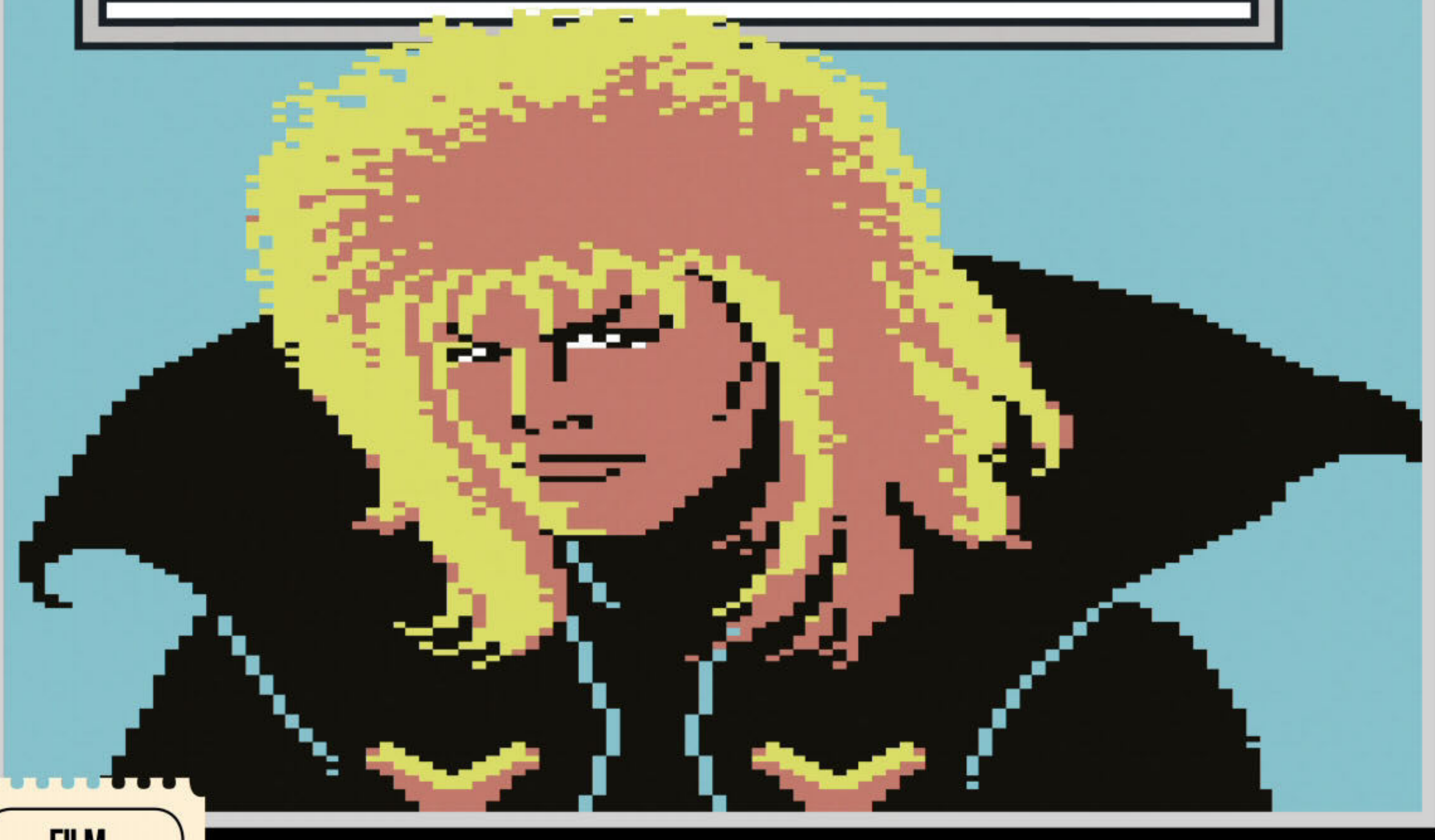
Although it originated in a country where it would only ever be a bit-part player, the Amiga 500 was successful enough that in many ways you could consider the UK and Germany Amiga's second home, particularly when you consider not only the sales of the machine, but the sheer amount of games and software that was created by European developers for the machine. The Amiga leaves behind no end of fine memories, and those who were closest to it leave a great legacy. Chris Huelsbeck sums up best by saying, "Amiga was a leap forward when it was introduced. I am looking back fondly and a bit sad how it ended, but I'll never forget the good old days, the makers, the creators and all the fans that made it happen!" *

» [Amiga] *Sensible Soccer* was a huge success for Sensible Software. A hit sequel soon followed.

We'd like to thank all of our interviewees for their help. Jeff's writings can be found at porterdigitalsignage.com/Blog.html. Chris can be found at huelsbeck.com. The author would also like to thank Adam Spring (Remotely Interested Podcast) and Zachary Weddington (Viva Amiga) for their input.

LICENCE TO THRILL

NOW SHOWING: LABYRINTH



FILM

- » **YEAR:** 1986
- » **STUDIO:** Henson Associates/Lucasfilm
- » **DIRECTOR:** Jim Henson
- » **STARRING:** David Bowie, Jennifer Connelly, Toby Froud, Shelley Thompson
- » **BUDGET:** $25 MILLION
- » **BOX OFFICE:** $12.9 MILLION

GAME

- » **YEAR:** 1986
- » **PUBLISHER:** Activison
- » **DEVELOPER:** Lucasfilm Games

Jim Henson's film has found fame as a cult classic in recent years. Mike Bevan delves into Jareth's dominion to give you the lowdown on Lucasfilm's obscure adaptation

When you look closely at its many elements, *Labyrinth* has all the ingredients for a rollicking adventure videogame – an impenetrable maze, an enigmatic antagonist, traps, puzzles, and a whole bestiary of goblins and other fantastical characters, courtesy of Jim Henson's Creature Shop. A creative collaboration between Jim Henson and Lucasfilm, with a story by Monty Python's Terry Jones, *Labyrinth* was the second fantasy movie from Jim Henson's studio after 1982's *The Dark Crystal*. The film starred Jennifer Connelly as Sarah, a plucky teenager who must navigate the Labyrinth of glam-punk Goblin King, Jareth, played by David Bowie, to rescue her kidnapped baby brother.

» [C64] Not much margin for error here…

"*Labyrinth* was the first film project that Lucasfilm offered as a licence to us," recalls the game's lead designer and programmer, David Fox. "They said they were doing this project and asked if we'd be interested in doing a game version, so we saw an early script and a videotape that showed some excerpts of some of the scenes, rough cuts that just showed the interaction of the puppets and actors. The names attached were impressive, especially Jim Henson. So we thought, 'Yeah sounds good.'" This videogame would be the very first adventure released by Lucasfilm Games, the company that later wowed the world with titles like *Maniac Mansion* and *The Secret Of Monkey Island*.

For the developers at Lucasfilm, who had previously not been allowed to create products based on the company's movies (including *Star Wars*) *Labyrinth* was something of a watershed moment. "I think we were all pretty excited," says graphic artist Gary Winnick. "One of the reasons we came to Lucasfilm was the prospect of being able to work with the film development groups within and connected to the company. The thought of being involved in a game based on a film that Jim Henson was directing and George [Lucas] was involved in was pretty compelling. As far as the film goes, I liked it, and I was also a David Bowie fan. The look and feel of the design was also right up our alley given its story, fantasy and many game-like elements. Having to get past obstacles and adversaries in a maze is pretty game-like."

David was invited to London, where the *Labyrinth* film was



» [C64] If you've seen the film, the phrase needed for the final confrontation with Jareth should be easy to work out.

> **"The power of voodoo! Who do? You do! Do what? Remind me of the babe!"**
> Jareth & Goblins

being produced, to discuss ideas for the game version. "We had a brainstorming week with Douglas Adams, who wasn't really associated with the film but was good friends with Jim Henson," he tells us. "I think Terry Jones was also in that group of people that knew each other, although he did not participate in the brainstorming. I was 35 years old and still partially in awe that I was even at Lucasfilm, and here I was meeting with Douglas Adams! I loved *Hitchhiker's Guide To The Galaxy*, so I was totally in awe of him."

"We basically went through the entire movie," David continues, "although we never got a screening, we knew it from the script. I was giving input and taking notes when I could but most of the ideas came from Douglas and [*Sesame Street* writer] Christopher Cerf, who, I think, knew each other. There was this crazy energy coming from the two of them for idea after idea… I also remember taking notebooks for notes and going to the Creature Shop and getting to see some of the muppets they were using in the movie."

"One night Douglas invited us over to his house for dinner and Jim Henson was also invited. He was sitting right across the table from me and if I was a little intimidated by Douglas I was probably more so by Jim because I knew his work even more. I'd be eating my food and every once in the while I'd hear Kermit The Frog across the table from me. Jim was really kind, humble, unassuming. Douglas was too, they were both extremely warm creative people who I felt honoured to be in the presence of. I also remember that when Jim arrived he came with a huge smoked salmon, maybe three foot long. That was intended as a joke, so Douglas could say at the end of the evening, 'So long and thanks for all the fish!'"

Douglas was behind one of the most radical ideas in the *Labyrinth* game, seen right at the start. "We were wondering how to transition from 'real life' to this fantasy world," David explains. "We didn't want you to be the main character in the ▶



» [C64] He may be a wise man, but he also gives you very obtuse and annoying clues.

MOVIE TO GAME COMPARISON

Even though the game wasn't a direct translation of the movie a lot of similar scenes do appear…



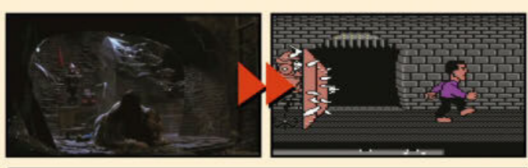
ALPH AND RALPH

In the film theses topsy-turvy tricksters guard two doors, one of which leads to the castle, and the other to 'certain doom'. They have the same role in the game, forming a nice puzzle in the fact that only one of them ever tells the truth…



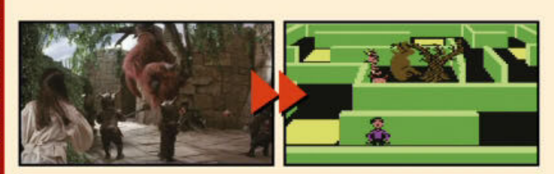
WALL OF HANDS

In the movie, Sarah gets a little cocky after outfoxing Alph and Ralph, only to plummet down a hole, the walls of which are decorated with scores of grasping limbs. Fortunately, they turn out to be more helpful than they seem. This scene is recreated admirably in the Commodore 64 version.



THE MACHINE

After escaping from an oubliette with the help of Hoggle, Sarah and her new friend escape being flattened by a goblin-powered tunnelling machine deep beneath the Labyrinth. Players also have to make an escape from this contraption, which can only be stopped with a large wooden object…



PERSECUTION OF LUDO

Ludo, a big friendly orange walking carpet, is by far the largest of all of Henson's creatures in *Labyrinth*, and we meet him in a scene where he tied up and being taunted by goblins. Like Sarah in the film, the player is tasked with releasing him from the clutches of his oppressors.



THE IMPOSSIBLE CASTLE

One of the most visually imposing segments of the movie is the standoff between Sarah and Jareth in his Escher-like abode, with brother almost within reach. The game depicts this encounter through another action sequence, where you must try to hit Jareth with a crystal ball.



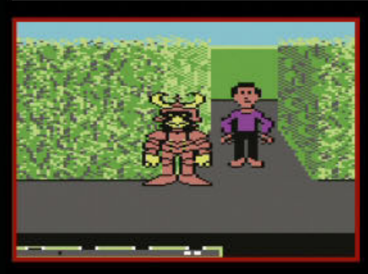


» [C64] Ludo is your friend, if you hadn't already guessed from his vernacular…

movie, so we came up with the idea of the player being themselves… a male or female character, depending on who they chose at the beginning. So we thought, maybe you should start off by going to a movie theatre, go inside to see the film, and get sucked into the *Labyrinth* universe. And Doug said 'Let's start as a text adventure!' I think the *Hitchhiker*'s text adventure, which he had been involved with, was already out by this point, so he knew text adventures well. And he said 'What if we have it like the *Wizard Of Oz*, where it starts in black and white then goes into Technicolor when she goes to the new land? Why don't we start with a text adventure then switch to a full screen colour graphic adventure when you arrive in that universe?' It sounded like a great idea, so I said, 'Let's try it!'"

Back at Lucasfilm, David and his team sat down to the unenviable task of amalgamating all of these ideas into a game, in a relatively short development window given the film's impending release. "We didn't have time to do a mature Infocom-style parser so it was my idea to do this simplified interface, like a slot machine," he says. David's solution was to let players pick from a list of verbs and nouns which they scrolled through via the keyboard cursor keys. "There was no interpreter [like the forthcoming *SCUMM*, used for developing *Maniac Mansion*] at the time, it was all hand coded in 6502 assembly, so it was kind of painful. Our system was very different from *SCUMM*, which gave you a set of verbs from the start – here, we'd add and remove stuff as necessary as you went on. This worked when you had an interface that was a continuous wheel, but wouldn't have worked in a *SCUMM* game where you had all the words on screen. However, in a way it allowed for more flexibility."

NOTABLE VERSIONS



COMMODORE 64

■ This release is really the definitive version of the game, in terms of speed, and graphic quality, with smooth scrolling, good sound and music, and relatively fast loading if playing the disk version. *Labyrinth* isn't really a game that can be played particularly well from tape, though, at least without a fair bit of frustration.



APPLE II

■ The Apple version is okay, but suffers compared to the Commodore port in terms of smoothness, with notably slower, jerkier character animation and scrolling. The palette is duller and sound and music is practically nonexistent, although these faults are down to the Apple machine's less-powerful hardware.



MSX

■ Versions of *Labyrinth* were released in Japan for the MSX and PC-88 personal computers and were notable for completely omitting the text adventure portion at the start of the game. The character graphics are also much smaller, although we'll award bonus points for their excellent bitmap artwork of David Bowie…



SUPER FAMICOM

■ Released only in Japan for the Super Famicom (NES), this licence of the film was developed by Atlus, separately from the Lucasfilm Games release. It's a fairly bland arcade-adventure in the mould of Gauntlet, with players taking the role of Sarah from the film, attempting to track down her estranged sibling.



» [C64] To cross the Bog Of Eternal Stench you must prove your courage to Sir Didymus.

"I was given a stack of colour and black and white movie stills to work from," Gary recalls about creating the graphics. "Also a number of character turn-around references. I remember having access to any available reference necessary. It was one of the first times I was attempting to create sprites and backgrounds based on an existing property. We didn't really have access to scanning technology at the time. So what I started doing was tracing my drawings onto a piece of clear plastic, then I'd tape that to the front of my monitor and plot an outline with my drawing software looking through the overlay. Once I had approximated the shape I'd then clean that up."

"I don't think we had to cut much from the film," David continues. "There were a couple things we weren't sure how we were going to do them, we wanted to get a number of core elements in the game so that you felt you were in the movie. It was similar to the issue that came up when we did *Indiana Jones And The Last Crusade* – we didn't want players to have a big advantage if they had seen



» [C64] Getting pursued by monsters in a tricky maze is never a good idea. Where's the exit when you need it?

"It's only forever. Not long at all!"
Jareth

the movie. In fact in this case we didn't want to assume you had seen the movie at all because we didn't know how popular it was going to be."

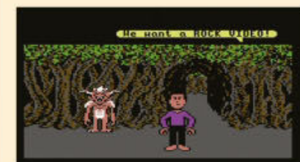
When the film was released, unlike its predecessor *The Dark Crystal*, it was not a success at the box office, making only around half its actual budget. As such, the game was overlooked when it hit the stores. "I've heard some people say they felt it was a better creative success in some aspects," says David, "but the film ended up with this huge cult following because of Bowie, and over time it's become way bigger. I think because the film didn't do that well at the time Activision maybe didn't put much money into marketing it."

At this point, **Retro Gamer** mentions one of Douglas's other in-game quirks, the inclusion of the word 'adumbrate', an obscure verb which means 'to foreshadow'. "Douglas had this idea to adumbrate the elephant," chuckles David. "I don't know where this came from, he just loved the word, he thought it was really funny… and who was I to say no to Douglas Adams?! So there's one use, I think you get stuck in an oubliette (cell) and the only way out is to adumbrate the elephant, I don't think we see it, it's done with sound or something, but it creates a hole and you end up escaping. So you're foreshadowing the elephant, and by foreshadowing it, it appears." That's so very Douglas, we both agree. ✱

Thanks to David and Gary, who are currently working on, *Thimbleweed Park*, coming soon this year.

ARTISTIC LICENCE

These weren't in the film…



FACE THE STRANGE…

■ In the film, the Fireys were annoying furry denizens of Labyrinth's forest, taunting Sarah with gratuitous samba dancing and detachable body parts. In the game you'll meet a lone Firey, who seems much more interested in something completely different. We hope you remembered to bring your video camcorder…



STONED GOBLINS

■ As you near your goal, you'll encounter this minigame which must be completed to enter the Goblin King's castle. With the help of an off-screen Ludo, who summons up rocks for you, the aim is to pelt the Goblin guards as they pop up on the battlements. Unfortunately, getting the timing right to hit them is rather tricky.



Dan Dare: Pilot Of The Future

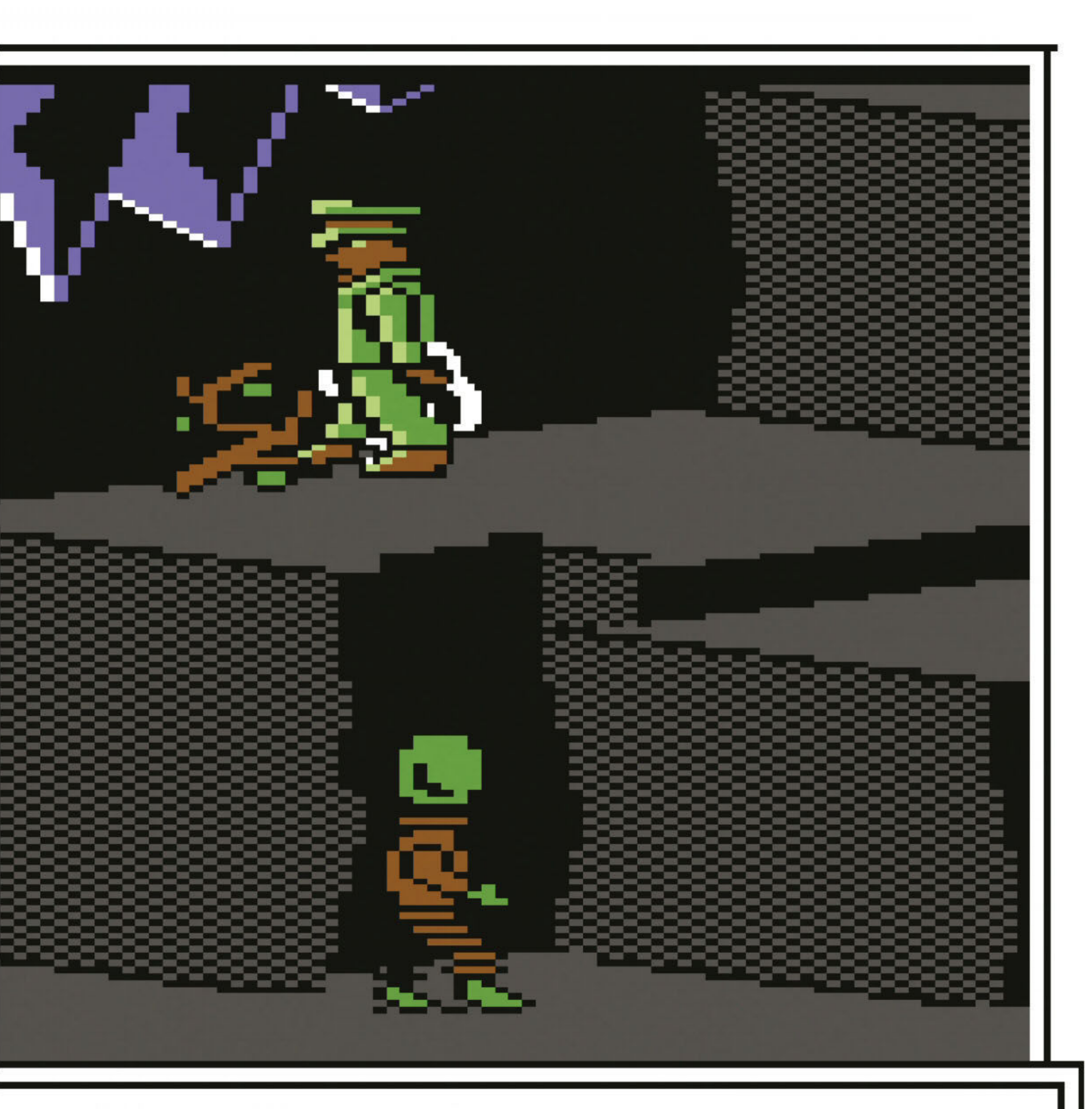
"JUMPING JETS!"

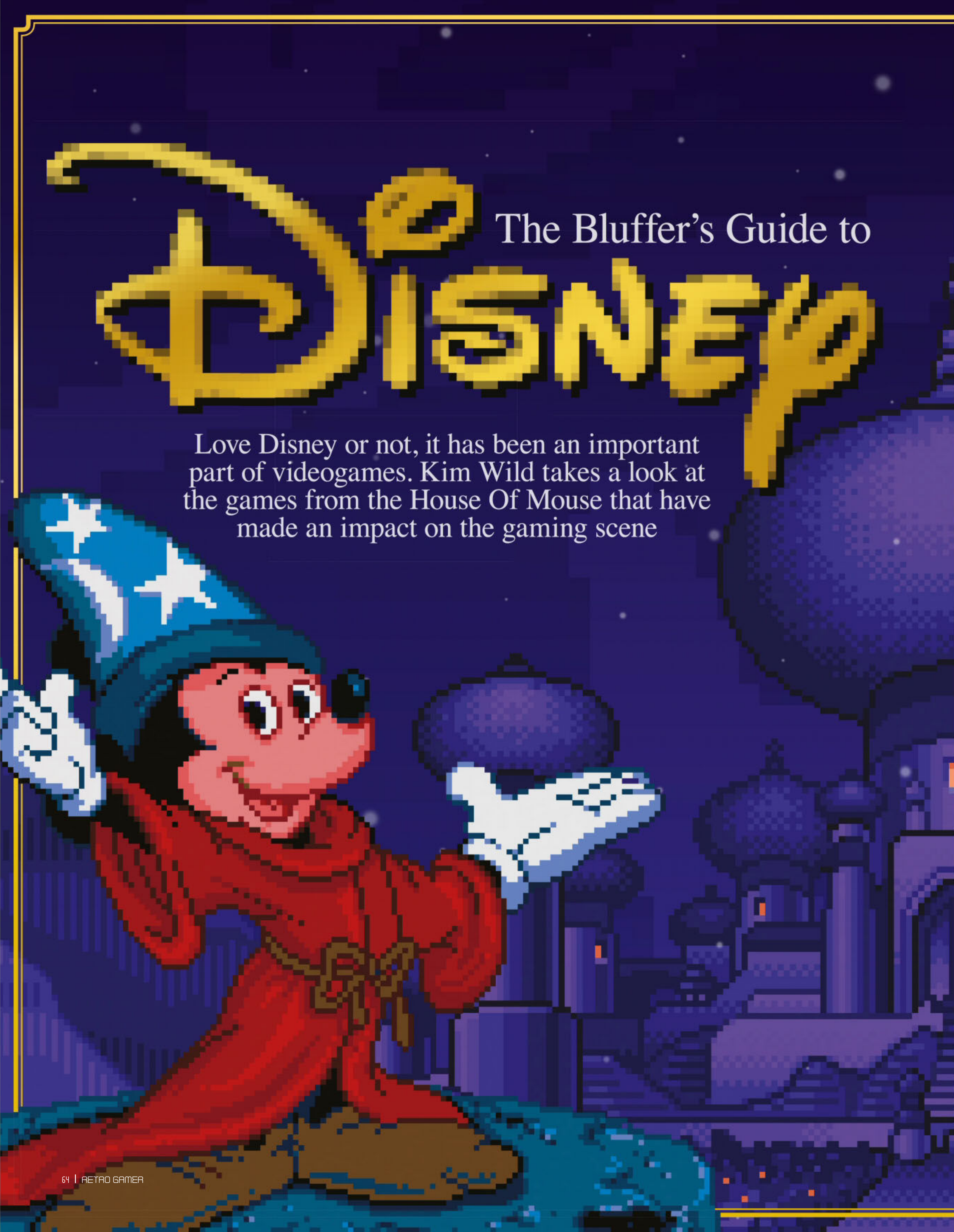
» COMMODORE 64 » GANG OF FIVE » 1986

Have you ever had the feeling that you got into something at the wrong time? For me, that was the *Dan Dare* experience. As a kid, I had *Dan Dare II: Mekon's Revenge*, an exciting, but overly difficult, shoot-'em-up – and as I was told repeatedly, a game that just didn't compare to the original platform adventure. But any further attempts to get into *Dan Dare* proved fruitless, as the C64 market had wound down and the original couldn't be found, and the Eagle comics in which he originated had recently been discontinued.

Some years later, I was able to play the original *Dan Dare: Pilot Of The Future*. Not only was it as superior to the sequel as I'd been told, it was a real winner. It didn't do much differently to other platform adventures, requiring you to find items to use in specific situations to progress. However, I couldn't help but fall in love with the comic-style presentation in which text boxes narrate Dan's actions as he goes about the business of infiltrating a base, punching Treens and foiling the Mekon's deadly plans. Why this hasn't been ripped off more frequently, I'll never know – by comparison, the sequel's presentation just looks like a standard computer game.

Had I been born just a few years earlier, I'm pretty sure this game would have been my first step on the road to becoming a hardcore *Dan Dare* fan. As it stands, though, I just got to the party a little too late. *


UP THE THE BRANCH
THE GROUND
:40:36



The Bluffer's Guide to Disney

Love Disney or not, it has been an important part of videogames. Kim Wild takes a look at the games from the House Of Mouse that have made an impact on the gaming scene

"I went to Disney, saw the first five minutes of the film and I was sold"

Louis Castle

Disney has had a varied relationship with videogames since the early days of the industry and has seen some of its best characters brought to life on our favourite computers and consoles. It began in 1981 with the arrival of an exclusive Game & Watch Mickey Mouse game and a *Tron* release on home systems. A couple of arcade *Tron* games followed in 1982, before the focus was again returned to Disney's key mascot with *Mickey Mouse In The Great Outdoors* in 1983 on the Atari 8-bit which was followed by the release of *The Sorcerer's Apprentice* on Atari 2600. Although basic in nature, these were humble beginnings for better things to come for the iconic mascot. It wasn't all Mickey, though: Donald Duck debuted in the educational *Donald Duck's Playground* in 1984 with his further adventures continuing in *Donald's Alphabet Chase* in 1988.

Ducktales, remembered fondly by many, came out on the NES and Game Boy in 1989 and captivated gamers with its charm and engaging gameplay, taking control as Scrooge McDuck in order to set out and find his lost treasures. Its sequel, *Ducktales 2,* wasn't as impressive but was still a solid outing for the stingy duck.

It could be argued that the Nineties proved to be a pivotal one for videogame Disney fans as hit after hit was released for the console market and it was an era for the company that many remember fondly. *Goofy's*



» [Atari 2600] *Sorcerer's Apprentice* was one of the earliest Mickey Mouse games to appear on a home console.



» [NES] *Duck Tales* is a classic that was recently remastered for modern consoles by WayForward Technologies.

Railway Express kicked things off, it being an educational title released on the Amiga, Commodore 64 and DOS formats that is surprisingly fun to play, even if you don't like trains. Little chipmunks Chip and Dale appeared in their own thoroughly enjoyable game in 1990 in the form of *Rescue Rangers on* the NES. Its sequel, released three years later (and imaginatively titled *Chip 'N' Dale Rescue Rangers 2*), is also worth playing.

Castle Of Illusion, one of Mickey Mouse's finest escapades, was released in 1990 on Sega Mega Drive, Master System and Game Gear. Although the Mega Drive version is a revered game, well received by critics and gamers alike for its well-designed levels, the Master System version is an entirely different beast altogether and is just as worthy of your attention as some consider it better than the Mega Drive version.

The subsequent year saw the release of *Fantasia*, a very pretty but ultimately very difficult platform game that drew heavily on the movie of the same name. 1991 also saw a release of *Mickey Mouse* on the Game Boy, an enjoyable adventure that sees the gamer travel up ladders collecting keys and unlocking doors to progress through the levels. Japan saw up to four sequels to this game and, although they are fun to play, they are very similar in style to one another. Yet another game

Essential Disney Licences

The titles that every Disney fan should play



ALADDIN | MEGA DRIVE

■ A brilliant adaptation of the movie in videogame form, *Aladdin* takes all the ingredients of a classic game and gels them together to great effect. Whether you play the SNES version or the Mega Drive release, you are guaranteed a fantastic ride through the *Aladdin* universe that few have bettered since.



LUCKY DIME CAPER | MASTER SYSTEM

■ Donald Duck is lovingly crafted in this side-scrolling gem. *Lucky Dime Caper* sees the cantankerous duck, armed with his trusty hammer to take out pesky enemies, on a quest to rescue his nephews. Set across a variety of worlds, *Lucky Dime Caper* is one of the Master System and Game Gear greats



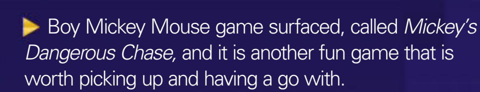
CASTLE OF ILLUSION | MEGA DRIVE

■ This game starring Mickey Mouse is one of his best adventures to date where he must save Minnie from a fate worse than death. Whether you choose the Mega Drive or Master System/Game Gear version (both of which are entirely different games) you're in for a challenging yet enjoyable jaunt in platforming heaven.

Boy Mickey Mouse game surfaced, called *Mickey's Dangerous Chase*, and it is another fun game that is worth picking up and having a go with.

Mickey would also be the star of several educational titles on the Amiga and DOS in 1991. These included *Mickey's 123: The Surprise Party, Mickey's ABC's A Day At The Fair, Mickey's Colors And Shapes* and *Mickey's Jigsaw Puzzles. Mickey's Memory Challenge* was released on Amiga and DOS formats in 1993 which would see players having to memorise which Disney characters were under each card and match them up.

Talespin, the cartoon series, received its own platform game in 1991 on the NES, Mega Drive, TurboGrafx 16 and Game Gear, although it is the Mega Drive version that stands out as the most memorable of the pack. *The Little Mermaid* also received its own game, this time on the NES, and is a game very reminiscent of *Ecco The Dolphin* but nowhere near as good.





» [Mega Drive] Mickey Mania saw Disney's iconic mouse adventuring through a number of his classic cartoons.

Donald Duck also starred in one of his best adventures to date in the *Lucky Dime Caper*, released on the Master System and Game Gear in 1991, where the plucky duck goes on a globetrotting extravaganza to rescue his nephews. Donald also appeared in *Quackshot*, a game where the main weapon of choice is a plunger, on the Mega Drive which was another classic that had a slower pace of gameplay. He later showed up as his alter ego Darkwing Duck in the NES and Game Boy titles of the same name in yet another decent platform game for the hero. In 1993, Donald returned in yet another enjoyable romp in the form of *Deep Duck Trouble* for the Master System although it lacks the classic status of *Lucky Dime Caper.* Goofy also made an appearance, this time with the oddity *Goof Troop*, that was based on the cartoon series of the same name and would feature his pals in an RPG style overhead viewpoint game. Goofy's *Hysterical Tour*, a surprisingly enjoyable platformer, also came out on the Mega Drive in the same year.

Mickey Mouse again resurfaced in 1992, this time to grace the consoles of the Master System and Game Gear with *Land Of Illusion*, an excellent and huge platform game that sees the mouse travel across different themed worlds. It was also the year of the superb, if a little easy, *World Of Illusion* on the Sega

Timeline

1981 | TRON: DEADLY DISCS

■ One of the very first licensed Disney games was this excellent offering for the Intellivision. It was later released for the Atari 2600 and Aquarius.

1981 | MICKEY MOUSE (GAME AND WATCH)

■ This relatively simple game saw Mickey trying to catch an increasing number of eggs before they broke on the ground. Two versions of the game were eventually released.

1981 | SORCERER'S APPRENTICE

■ Mickey dreams of becoming an apprentice and tries on the hat causing chaos. Stop the brooms at all costs.

1983 | DISCS OF TRON

■ Another score-based game set in the *Tron* universe and the second to be released in arcades. You'll need good reflexes to master it.



WORLD OF ILLUSION | MEGA DRIVE

■ Mickey and Donald team up in this beautiful platformer. Playing as either protagonist, and the gameplay differing slightly depending on who you pick as your character, you get to travel across numerous worlds in a bid to escape from the magical prison that you have found yourself within.



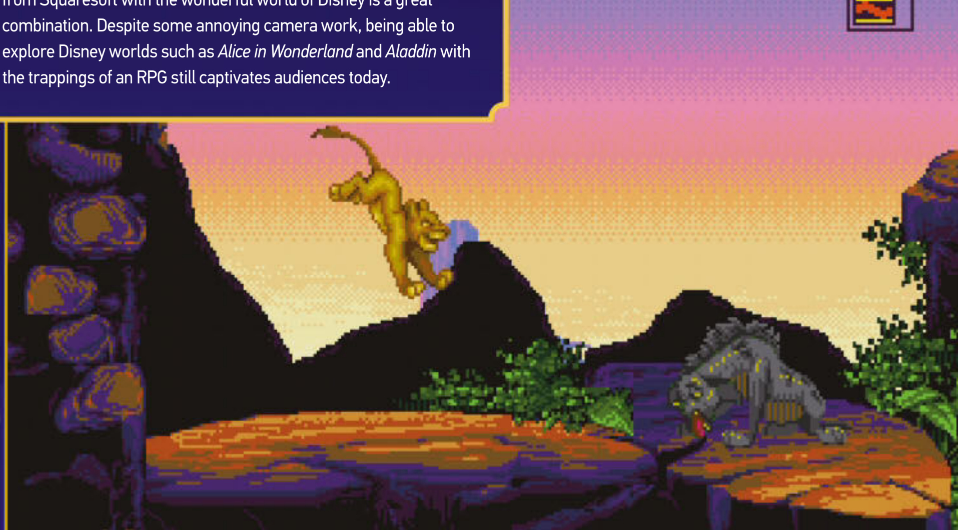
KINGDOM HEARTS | PS2

■ It shouldn't work, but the marriage of role-playing gameplay from Squaresoft with the wonderful world of Disney is a great combination. Despite some annoying camera work, being able to explore Disney worlds such as *Alice in Wonderland* and *Aladdin* with the trappings of an RPG still captivates audiences today.

> "There was no access to art for the Jungle Book"
> David Bishop

Mega Drive that saw Mickey team up with Donald Duck as they attempted to escape the magical world that they had been spirited away to. In 1993's *Disney's Magical Quest*, Mickey went on the hunt for Pluto and attempted to stop the evil King Pete from conquering the world. This game would be followed up by *Disney's Magical Quest 2*, otherwise known as the *Great Circus Mystery*, and saw Mickey or Minnie continue their adventures. This time a co-operative two-player mode is included and the game itself is an easy, but enjoyable, platformer to play. The Game Boy saw *yet another* Mickey Mouse game with *Magic Wands*, a curious title that involves waving his wand over crystals to collect images of your friends in order to complete the levels. *Mickey's Safari In Letterland* on the NES was another educational title featuring titular character searching for specified letters to complete the levels.

In 1993, Virgin's impressive *Aladdin*, noted for its superb animation and outstanding gameplay, was released and was subsequently followed by *The Jungle Book*. David Bishop, one of the designers for *The Jungle Book*, tells us a little how it came about. "I was involved with *Aladdin* and *Jungle Book* and peripherally involved with *Pinnochio* and *The Lion King*," he begins. "There was no access to art for *The Jungle Book* as everyone was dead and everything was created from scratch. We had the rights to the SNES and Genesis versions and these were developed in parallel to each other. We had talented character artists, specialists, amazing animators who now have their own companies. We basically took the film and watched it a 1,000 times, took scenes like the King Louis scene and broke it into parts. Different people worked on different parts. [They'd] animate the main character then the main animations."



» [Mega Drive] Amazingly, *The Lion King* was created by the same studio that made the Command & Conquer series.

When it came to designing the levels, the team would gather together and brainstorm. "For example, we knew we wanted to do a vertically-scrolling waterfall with the main goal from the bottom to the top of the screen," David says. "We would design that so that we can see what the player would see on screen. We would lay it out on paper and put in game, move platforms or enemies around if unfair or too easy. We would all sit in the same room as Dave Perry making new versions as we went along. The nature of the level would determine how we would do this. Later levels were harder due to being on cartridge. Some of the levels were really hard. It took about nine months to develop the game," concludes David.

In 1994, *The Lion King* would be released. Louis Castle, one of the designers for *The Lion King*, tells us a little about how the game came around. "Virgin had recently shipped a very successful *Aladdin* platform game for the SNES and Genesis," he explains. "Disney approached Virgin to make a new game

1984 | MICKEY'S SPACE ADVENTURE

■ A graphic adventure game that sees Mickey stumble upon a spaceship sent by aliens and is tasked for looking for pieces of a crystal

1987 | MICKEY MOUSECAPADE

■ Mickey Mouse has to save a young girl who is later revealed to be Alice from Alice in Wonderland from various evil bosses

1988 | MICKEY MOUSE

■ In this title, Mickey Mouse must explore the levels by avoiding ghosts and collecting keys to unlock doors to progress

1989 | DUCKTALES

■ Scrooge McDuck must travel the world and even visit the Moon to locate the lost treasures to make him rich beyond his wildest dreams

1990 | CASTLE OF ILLUSION

■ Mickey Mouse enters the Castle of Illusion to rescue Minnie Mouse from the evil witch Mizrabel who wants to steal Minnie's youth

Magic Ingredients

We break down what makes a Disney game so special

SUPERB ANIMATION
■ Disney games typically had superb animation, and, at times, the company used its own artists to help with gaming projects.

GOOD GAME DESIGN
■ Be it well-placed platforms or stunning set-pieces, Disney games were emblematic of well-thought-out design. It's no small wonder, either, as it uses some of the best developers in the industry.

SMOOTH CONTROLS
■ A decent game isn't anything unless you have responsive control over your main character and *Aladdin* is a prime example of this.

NON-INTRUSIVE BACKGROUNDS
■ Disney is known for fantastic art, so the backdrops in its games need to be of a similar quality. They also should be non-intrusive.

COLLECTIBLES
■ Most Disney games have something to collect, whether it's apples, in this case to use as weapons, or other objects to top up your health.

» [Game Boy Color] Nintendo's handheld was filled with licensed games, with *Mickey's Racing Adventure* being one of the better releases.

▶ based on *The Lion King* film, which was still under development. Virgin's team was busy working on another title so Martin Alper, Virgin's CEO, asked me if Westwood would be interested in doing the game. I went to Disney, saw the first five minutes of the film and I was sold. "Louis and his team worked on both the SNES and Mega Drive versions of the game. "I preferred the SNES version as a player but I was more impressed by how the Genesis version really pushed the platform," he continues. "The SNES had some specific hardware graphics modes which were hard to replicate on the Genesis."

Louis explains a little how the game was designed."The level settings were selected from the film story that was under production," he says. "Once we had some clear imagery and a potential list of enemies we would decide the overall scope of the level and what kind of challenges and rewards we wanted to focus on for that setting. From there, we would create a mock-up level with skeletal characters to get the feel. Simba's abilities set the scale for the worlds and the visuals of the settings inspired the platforms. The level designers would build out the skeletons and the artists would create the background art to match the levels. The animations were developed through a lengthy process involving Disney animators and videogame artists. It was a cross-disciplinary effort to get the best-looking game we could on very limited systems. I felt that the best way to represent *The Lion King* as a game was to let the player play through Simba's full story. Since *The Lion King* is all about Simba growing up it just felt wrong to me to limit the game to Simba as a cub or adult alone."

Back then, Disney had plenty of involvement with the videogame development. "Disney was very involved in the audiovisual presentation of the game," says Louis. "They worked for us to create custom animations which we then scanned and rotoscoped to create sprite frames. Every character, background and audio clip was approved by Disney and Disney software even helped with quite a bit of game art.

"We started in January of 1994 and finished by the end of July" continues Louis. "Our challenges included a new, small team, short timeline, a feature film that was not finished and limited access to Disney assets, since security was very tight. Ultimately our core team went to Florida to work at the Disney Animation Studios on the MGM theme park lot to get the game done. It was a very compressed effort working six to seven days a week for the entire project. It was great to be part of such a transformative project for Disney. Being part of the biggest animated feature launch in history was unbelievable. Everywhere we looked there was *Lion King* stuff."

In terms of how the game holds up today, Louis is cautiously optimistic. "I don't think many projects on older platforms truly hold up to today's standards but I'm proud of what our team accomplished. I like to think the core game mechanics and tuning will still delight players, even if they are much harder and less forgiving than most modern games."

1991 | FANTASIA
■ While it has reasonably faithful renditions of the film's classic tunes, this is a terrible platformer that doesn't deserve your time

1991 | LUCKY DIME CAPER
■ The Evil Witch Magica De Spell has kidnapped Uncle Scrooge's nephews and stolen his lucky dime

1991 | QUACKSHOT
■ Donald Duck and his nephews Huey, Dewey and Louie become treasure hunters in this globetrotting quest

1992 | QUACKSHOT
■ A great alternative to *Castle Of Illusion* that equipped Donald with useful plungers and a popcorn gun

1992 | LAND OF ILLUSION
■ Mickey Mouse falls asleep to awaken in a magical kingdom where a magic crystal has been stolen from the villagers.

» [SNES] *Toy Story* was a graphically impressive offering from Traveller's Tales that mashed up many different genres.

M*ickey's Ultimate Challenge* was also released in 1994 and is a lovely game that sees Mickey or Minnie complete different tasks to gain objects in order to uncover the truth behind the mysterious earthquakes plaguing the city. This was also be the year that saw the release of *Mickey Mania* on the Mega Drive and SNES, having the iconic character revisit his classic cartoons in a series of side-scrolling levels. *Mickey Mania* was originally planned to be released for Mickey's 65th birthday but this would have meant a shorter development time so it was decided upon to revisit Mickey's cartoon heritage. In 1995, the final game in the *Illusion* series was released with *Legend Of Illusion* for the Master System and Game Gear. Unlike the other Master System games in the series, Mickey used bars of soap as a weapon, as opposed to jumping on the enemies to defeat them, and featured puzzles to solve as well as the usual platforming antics. Capcom's *Magical Quest 3* was also released that very same year.

Not content with letting Mickey completely rule the show, *Beauty And The Beast* was the source of not one but two games that were released at the same time. One stars the Beast as the main character ▶



» [Mega Drive] Quackshot was a fantastic Mega Drive platformer, easily on par with the excellent *Castle Of Illusion*.

"Disney were very hands on, and very supportive"

Dave Perry

A Whole New World

We talk to the legendary coder, Dave Perry, about Aladdin



How did you come to work on the *Aladdin* licence?

We had finished *Cool Spot* for 7-Up and our next project was *Jungle Book* for Disney. I was *so* happy with the progress on *Jungle Book*, we had amazing animations of Mowgli and the background art was the best we'd done. Then out of the blue Sega (who had published *Cool Spot*) made a deal with Virgin to get *Aladdin* done, it was an emergency. We literally dropped everything on *Jungle Book* and started working on *Aladdin* as it had to be ready to launch with the video release of the movie. It was the hardest I've ever worked in my career, but we got it done.

How long did development take and what was the most challenging aspect of development?

I seem to remember that it only took a few months to make the game etc.. We pivoted from working on *Jungle Book* so we were in the right headspace and had running code. Disney (working with our animation director) delivered the beautiful hand-drawn animations that ended up in the game and we had a process to get them into the game engine. It was one of the fastest developed games we'd ever worked on. I remember sleeping in my car in the parking lot as I was too tired to drive.

What was the main differences between the SNES and Mega Drive versions?

Disney was very involved with the design, so maybe that's why the games are similar, but we didn't work with the SNES team, we made the Mega Drive/Genesis version and didn't look back.



Someday, I need to play the SNES version and have a good go at it.

How much input did Disney have?

They were very hands on, and very supportive. I'd say *Aladdin* was the closest collaboration with an external team they had done to that point. It was Jeffrey Katzenberg that made it possible and when he left Disney I think they lost that drive that he brought to this project.

What was the most memorable experience on working on the game?

Everything was Disney scale, so at the press launch I went to the wrong floor on the elevator, the doors opened and the entire floor was packed with *Aladdin* Disney Characters waiting to put on a big dancing performance. The industry had never had a launch so epic and I realized the power of working with massive companies that support their projects 110 per cent. Everyone was there from Jeffery Katzenberg to Richard Branson to Hayao Nakayama. That was a day to remember and a perfect way to end such a fun project.

1992 | WORLD OF ILLUSION
■ Playing as Mickey or Donald trapped in another world, they must use their magic capes and quick wits to escape

1993 | DEEP DUCK TROUBLE
■ Donald must save Scrooge McDuck from an evil curse that has him puffed up into a floating balloon.

1993 | DUCK TALES 2
■ Scrooge McDuck discovers a treasure map from Fergus McDuck and goes on a quest to get the treasure

1993 | GOOF TROOP
■ Play as Goofy or Max in a bid to rescue Pete and PJ who have been kidnapped by a ship.

1993 | ALADDIN
■ Based on the film, Aladdin must travel the streets of Agrabah and take to the skies with the magic carpet

The Strangest Disney Licences

We're genuinely suprirsed that these got made…



MICKEY'S CROSSWORD PUZZLE MAKER | DOS

■ Aimed as an educational title this does exactly what it says in the title, allowing you to create your own crosswords with eight templates. You can pit your wits against Goofy, Donald and Mickey in competitive mode to see how smart you really are.



MICKEY'S JIGSAW PUZZLES | DOS

■ Another educational title with the world of Mickey Mouse at its beck and call is *Mickey's Jigsaw Puzzles*. As you'd imagine, you solve a variety of up to 15 themed jigsaws which can be printed out as colour pictures upon completion. Aimed at young children, completion of a jigsaw results in an animation for them to enjoy.



MICKEY'S ADVENTURES IN NUMBERLAND | NES

■ This platformer sees Mickey collecting numbers and solving a basic maths equation at the end the stage. There are five levels in total and *Adventures In Numberland* is notable in that it's only possible to die on the hardest difficulty.



» [PS2] It was the crossover no-one asked for, but we glad *Kingdom Hearts* entered the gaming world.



» [N64] *Mickey's Speedway USA* was a polished take on the *Mario Kart* series and was developed by Rare.

in a side-scrolling platformer exploring the castle and its environments while the other features Belle as the protagonist as she explores the world of the movie. Timon and Pumba from *The Lion King* also got their own game in *Timon And Pumba's Jungle Games* but with only three minigames in total, it doesn't stay fun for long.

In 1996, Donald Duck returned in *Maui Mallard In Cold Shadow*, a side-scrolling platformer that looked the part but fails to capture the magic of previous encounters. It was also the year of the excellent *Toy Story*, which debuted on the SNES and Mega Drive and is notable for pushing the Mega Drive to its limit.

The end of the Nineties saw *Mickey Mouse* appear in *Magical Tetris Challenge* on Nintendo 64 and *Mickey's Racing Adventure* on the Game Boy Color which is far more fun than it has any right to be. It also marked the release of *Toy Story 2*, an enjoyable 3D platform game that graced the PlayStation, N64 and Dreamcast.

Once the new millennium came along, Disney output lacked the inventiveness of the previous decade. *Disney's Quack Attack* was a fun platformer but didn't have the imagination of *Donald Duck*'s previous outings while *Walt Disney's Magical Racing Tour* was a poor *Mario Kart* imitation that failed to set the world alight. Salvation came with *Rare's Mickey's Speedway USA* on N64 as a decent, if underwhelming, foray into the world of racing. Disney even got involved with the burgeoning dance mat craze with *Dance Dance Revolution Disney Mix* which wasn't a bad effort at the genre. Goofy even had a stab at things with the forgettable Goofy's

1993 | THE JUNGLE BOOK
■ Recreating key scenes from the movie, Mowgli must travel across dangerous jungles to survive

1994 | MICKEY MANIA
■ Mickey must revisit the world of his old cartoons dating back to *Steamboat Willie* in this adventure

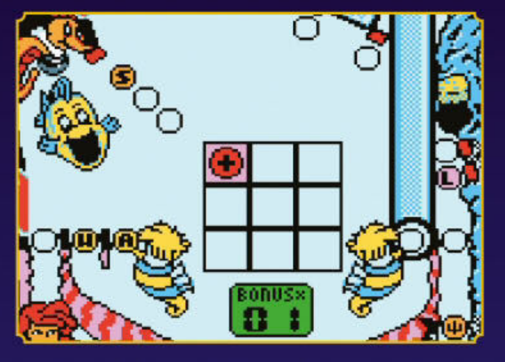
1994 | THE LION KING
■ Tracing Simba's steps from a young lion cub up until his days as an adult, *The Lion King* stays true to the movie

1995 | LEGEND OF ILLUSION
■ Last in the *Illusion* series, Mickey is nominated as a reluctant King as he tries to save the Kingdom

1996 | PINNOCHIO
■ Follow the events of the movie as you star as Pinnochio in this charming adventure.

ALICE NO PAINT ADVENTURE | SNES

■ A Japan-only release, this sees you clicking on Alice in order to progress the storyline. And that's basically the sole extent of the gameplay. It does, however, look pretty and appears to follow the world of *Alice In Wonderland* faithfully with some lovely animation but there's very little game here.



THE LITTLE MERMAID II: PINBALL FRENZY | GAME BOY

■ We've seen our fair share of pinball titles but this is the first to feature *The Little Mermaid*. As you'd expect, each table is themed with *Little Mermaid* characters and bosses although unfortunately the game itself isn't much fun.

> **"Disney delivered beautiful animations"**
> Dave Perry



» [PS3] Despite being a fantastic take on the 'Toys To Life' genre, *Disney Infinity* was ultimately cancelled.

Funhouse on PlayStation and the surprisingly enjoyable *Disney's Extremely Goofy Skateboarding* in 2001. *Little Mermaid* turned its hand to pinball with *Little Mermaid 2: Pinball Frenzy* on Game Boy Color which just isn't worthy of your attention. *Snow White And The Seven Dwarfs* also arrived on the Game Boy Color and is a very simplistic game aimed at very young children and doesn't have a great deal of challenge.

It wasn't until 2002, with the release of the phenomenal *Kingdom Hearts* on the PS2, an action RPG developed by Square which featured iconic characters from both *Final Fantasy* and Disney properties, that interest in Disney games picked up again. *Kingdom Hearts* spawned a sequel on the PS2 and with a third mainline game currently in development. Disney also tried its hand at sports with Mickey and friends starring in a range of titles throughout that year with varying degrees of success.

The curious *Disney's Magical Mirror* arrived exclusively for the GameCube in 2002 as did *Disney's Hide And Sneak*, in 2003. Donald Duck would have his turn in the dire *Disney's PK: Out Of The Shadows* which debuted on PlayStation 2 and GameCube.

One game that was surprisingly good was *Kim Possible's: What's The Switch* on PS2. Released in 2006, Kim Possible's adventure is an enjoyable platformer that has been overlooked by many. In 2009, the *Princess And The Frog* danced onto the Wii and DS but it ultimately failed to set the world alight.

Toy Story 3, an movie tie-in that comprised a story mode and a playbox arena to play with all manner of creations, came out in 2010 and comes thoroughly recommended. That same year the much-hyped *Epic Mickey* launched on the Wii. It was a perfectly fine game, albeit one that failed to live up to its billing. A sequel on the Wii U, Xbox 360 and PS3 surfaced but this fared even worse than its predecessor. A 2D side-scroller with the *Epic Mickey 2* moniker came out on 3DS but was critiqued for its unfair gameplay.

2013 would see a couple of notable remakes of now-classic Disney titles in the form of the excellent, if overpopulated with cutscenes, *Ducktales Remastered*, and *Castle Of Illusion* both released on Xbox 360 and PlayStation 3 systems.

It seemed that Disney was going to hit it big with the launch of the *Disney Infinity* range in 2013, complete with Disney figures to collect, in a bid to take on the likes of *Skylanders* but alas, the range was cancelled in 2016 due to the shut down of Avalanche Studios and the decision for Disney to no longer self publish videogames despite having a large userbase. The future of Disney games remains an uncertain one beyond that of film tie-ins and the prospect of *Kingdom Hearts III* on the horizon but the legacy we have been left with to date will always put magic into our hearts. *

2000 | MICKEY'S RACING ADVENTURE
■ Developed by Rare, this racing adventure combines puzzle solving with racing to great effect

2002 | KINGDOM HEARTS
■ Disney crossed with *Final Fantasy* results in this enjoyable action RPG that sees you travel across different themed worlds

2005 | KINGDOM HEARTS II
■ The sequel to *Kingdom Hearts* expands on the original with brand new characters and minigames with a strong storyline

2010 | EPIC MICKEY
■ Developed by Warren Spector, this game sees Mickey have to restore his world with the use of paint

2013 | DISNEY INFINITY
■ This was Disney's take on the popular 'Toys To Life' genre. It combined the building elements of *Minecraft* with other genres.

From the Archives

CRONOSOFT

Despite starting life after the 8-bit era, Cronosoft has forged a reputation for colourful software, notably on the ZX Spectrum. We sent Graeme Mason to find out about the joy and perils of running an Eighties-style software house – today

When it comes to retro gaming, there are few things as beautiful as holding a cassette tape in your hands. Downloads are fine; they admittedly do the job of getting a game onto your system efficiently. But turning over a box, admiring its art, flipping it open and removing the small rectangle of plastic and magnetic tape inside, before popping it into your trusty tape player with a satisfying click – that's a feeling that never dilutes, even 24 years after the last official commercial Spectrum game saw the light of day.

A man firmly in agreement with this nostalgic ritual is Cronosoft founder, Simon Ullyat. "Back in the early Noughties, I used to edit a fanzine for the Oric-1 and Atmos computers," he tells us, his enthusiasm for the topic clearly undimmed. "It went out every month, but eventually we ended it, and I found myself with a bit of spare time on my hands." Being a self-confessed fan of the 'punk DIY ethic', Simon fostered the notion of an independent not-for-profit label, and raised the idea on the forum of ZX Spectrum fan site, World Of Spectrum. The concept proved popular, perhaps unsurprisingly considering the lack of similar ventures at the time. So Cronosoft was born. "The Cronos bit comes from the lead singer of a dodgy Eighties black metal band called Venom," reveals Simon. "They all gave themselves satanic names. It was all a bit of a joke really, and the lead singer was called Cronos, so that formed the first part of the name." As good a reason as any, we concur.

» [Vic-20] Cronosoft has already published on a variety of formats such as this game, *Super Starship Space Attack*, on the Vic-20.

Growing up in the Eighties, Simon was a games fan from the moment he stepped into the nearby arcades. "Living not far from Skegness – or Skeg Vegas as it's more locally known – I used to be obsessed with the arcade games of the era. *Defender*, *Scramble*, *Astro Blaster*, *Gorf*, and so on. Then, when my brother got a ZX81 in 1982, I used to constantly hassle him to let me go on it." When Simon received a ZX Spectrum in 1984, it was time to fall in love for real. "The Speccy was always my favourite. It may not have been the strongest contender, but it had the best games. *Atic Atac*, *Manic Miner*, *Zzoom*, *Ant Attack*… the list just goes on." And like most fans, Simon also had his favourite software houses. "I liked the ones that cared a lot about their customers," he explains. "Those that made great games, had great artwork, and just cared. Labels such as Microsphere, Vortex, Software Projects, Hewson Consultants and Ultimate." Tellingly, Simon also reserves high praise for Jeff Minter's Llamasoft, mainly for "the way it was run, and the sheer playability of its games".

Cronosoft's first game was released in 2002. Despite his love of gaming and the Spectrum, Simon had no experience with actual games production. "Everything was completely new to me. Luckily, it took a while to get going, which gave me some much needed breathing space." With little coding experience either, it was obvious the new venture needed to obtain its product from third-party developers, much like many similar software house start-ups of the early Eighties. "I'd dreamed of creating games over the last 30 years," laments Simon, "but then very rarely

OSOFT



» [ZX Spectrum] Avoiding nature's bad boys, wasps, in *SplATTR* from Bob Smith.

> "There's something special about a brand-new Spectrum game sitting on the shelf"
> Simon Ullyat

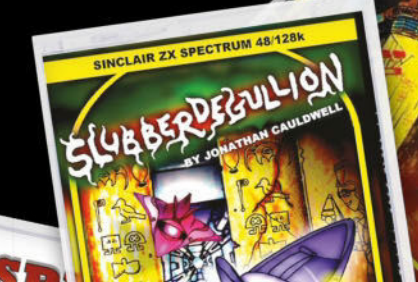
got past the sprite design stage, which was the bit I enjoyed doing the most. Unfortunately, my coding skills are very ropey, and limited to compiled Spectrum BASIC." Undeterred, Simon put out a call on the aforementioned World Of Spectrum forum, asking for contributions to the fledgling software house.

The call was answered by Jonathan Cauldwell, at the time best known for the first two games of a series called *Egghead*, which had both appeared on a *Crash* cover tape in the early Nineties. "We did *Egghead 3*, or *Egghead In Space*, after Jonathan offered it to me," grins Simon, "but I didn't originally know I was communicating with a gaming legend!" Jonathan laughs when we inform him of Simon's praise. "Naturally I got in touch! It was obvious it would be a really good way of increasing the game's audience." Jonathan had already released *Egghead 3* as a free download on his personal website – the opportunity to see his game in physical form was not something he was going to pass up. He says, "There's definitely something special about having a shiny cassette with a brand-new Spectrum game sitting on the shelf, and that's the great advantage of developing for the 8-bit machines; it's a hobby so there's no or little money in it. A developer can take risks knowing full well that the only cost is their time and the cups of tea consumed in the process!" The coder would go on to become chief supplier of quality games for Cronosoft. "He really is a top-notch programmer, and comes up with the most playable, clever and original games," says Simon, who is also convinced that Jonathan is a firm *Carry On* film fan given the humour present in most of his games.

With its first title in place, Cronosoft became a physical reality – not that Simon was worried about how things would proceed, or indeed whether there would be an actual market, considering community enthusiasm doesn't necessarily equate with hands-in-pockets. "I wasn't actually outlaying any money,

INSTANT EXPERT

- On the 29th April 2009, Cronosoft featured on the BBC website in an article entitled 'Keeping The Joystick Dream Alive'.
- **Cronosoft pays royalties of (typically) £1 per tape sold. That said, however, it's a non-profit organisation.**
- Approximately 20 per cent of Cronosoft's sales go overseas including Australia, USA and Canada.
- **Bob Smith's first Cronosoft game, *Stranded*, was actually written by the coder way back in 1989.**
- Each game is produced as an initial starter batch of around 50, depending on the format. Once sales slow down, small batches of four at a time are produced.
- **Cronosoft's *Ghost Castle* and *Ghost Castle 2* also feature a classic programmer of old in the form of Jarrod Bentley (*Crystal Kingdom Dizzy, Turbo The Tortoise*). Sorry about the 'old', Binman.**
- Founder Simon Ullyat's favourite games include Jonathan Cauldwell's *Utter Tripe* and Bob Smith's *Farmer Jack And The Hedge Monkeys*.
- **ZX81 games have consistently proven to be the trickiest to master, according to Simon. "Sir Clive Sinclair, if you're reading this, can you nip round to my house and give me some tips? I'll make you a cup of tea, or soup if you prefer..."**





TIMELINE

2002 ■ Simon Ullyat first devises the idea of a brand-new retro software house and floats the proposal on the World Of Spectrum forums.

2003 ■ **Cronosoft releases its first game, Jonathan Cauldwell's *Egghead 3*, otherwise known as *Egghead In Space*.**

2004 ■ Cronosoft expands its platform range, rereleasing several Commodore 64, VIC-20 and BBC games.

2005 ■ **Simon launches a competition to design the cover to Cronosoft's latest game, *Higgedly Piggledy*. It's won by World Of Spectrum forum member Graz Richards. Bob Smith also puts forward his first game, *Stranded*.**

2007 ■ Jonathan Cauldwell continues his prolific output for the Cronosoft label with *Izzy Wizzy*, *Egghead 5* and the brilliant *Quantum Gardening*.

2008 ■ **Bob Smith's *SplATTR* and Jonathan Cauldwell's *Shoot-'em-up Designer* are highlights of the year.**

2009 ■ Cronosoft's website undergoes a revamp, and one of its first new releases is James Kay's Dragon 32 game, *Glove*. Rob Pearmain's cute *Bipboi* is another notable Spectrum effort.

2012 ■ **Graz Richards's takes a break from Cronosoft to form Monument Microgames.**

2016 ■ The release schedule resumes as The Spectrum Show's Paul Jenkinson becomes Cronosoft's latest developer with a brace of polished games, *Toofy In Fan Land* and *Deep Core Raider*.

just a few quid for blank tapes and paper. So if I sold some, then fair enough; if not, then it was just a bit of fun." As befitted the status of its games, Cronosoft's first release was delightfully cottage industry. "To start with, I just knocked up a crappy inlay using *Deluxe Paint* on my Amiga, and printed the results on an inkjet printer on some glossy paper, and then made a few copies up on tape. It really did look extremely amateurish and I wasn't sure I'd sell any, but there was no harm in trying." No harm indeed, and buoyed by encouraging support from the homebrew community, *Egghead In Space* sold enough copies to convince Simon to continue apace with the software house.

As with today, tape duplication was done by Simon himself, although help was soon on hand in the artwork department. "I ran a competition on WOS for someone to design a cover for a game, which I think was called *Higgledy Piggledy*. The design that I chose was really cute and imaginative." The winning artist was fellow Spectrum fan Graz Richards. "I first discovered Cronosoft in 2003 when I was looking for new Spectrum software," explains Graz. "I picked up a copy of *Micro Mart*, and there it was: *Egghead In Space*. Naturally, I ordered it straight away." After winning Cronosoft's 'Design A Cover Competition', Graz became the company's chief artwork designer. "I redesigned the style of the cassette inlays so they had some uniformity," he says, "and began sorting out the cassette labels for a few titles, before even sourcing a few games that I thought would go well with the range. I wanted to help where I could, and play the games. That was enough for me. The Speccy really is a phenomenon, and I felt, and still feel, that there are going to be people interested in new games for many years to come." Simon himself is gushing of Graz Richards's efforts. "The [games] were quite crap-looking when I started – he provided oodles of smart, professional-looking masterpieces that transformed the range, before providing lots of support with promotion, mastering and so on."



» [ZX Spectrum] *Ghost Castle*, and its sequel, appeared together on a Cronosoft mini-compilation.

From its inception, and still today, Cronosoft operates from Simon's own home. "A few years ago I did run it from a small industrial unit which was also the base of my day job," he says. "But now it's back to my home, and my 'Chaos Room', the most cluttered place in my house, full to the brim with cassettes, computers, monitors, racks of tapes decks and messes of wires. In fact, with the amount of daisy-chained four-way adaptors involved, it's a very Eighties health and safety nightmare!" A fitting base of operations, and in a charming throwback to the bedroom coding culture of the early Eighties, the way Cronosoft acquires titles is suitably apt, as Simon explains. "A coder will normally email me with a game – sometimes a work-in-

DEFINING GAMES



EGGHEAD IN SPACE

ZX SPECTRUM, 2003

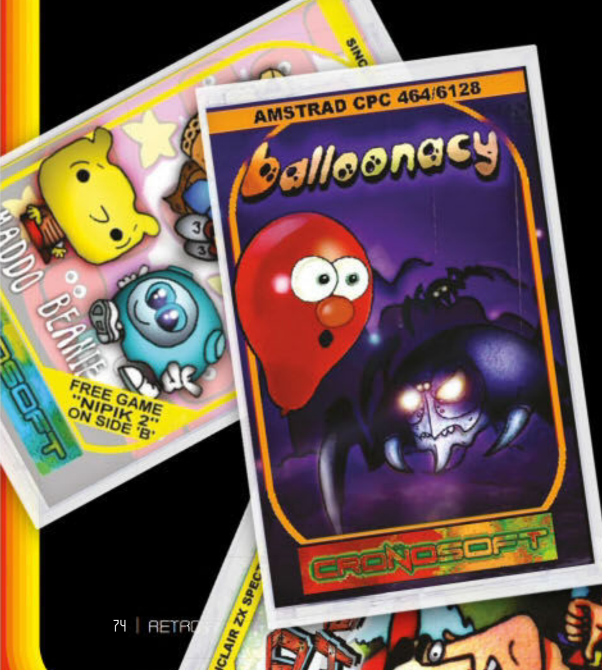
■ Cronosoft's first game was actually the third in Jonathan Cauldwell's ovular-obsessed series and boasted a bonkers storyline. Aliens have stolen Egghead's software collection and our hero has hitched a ride on their space rocket in order to retrieve his games. Essentially a platform game in the spirit of the Spectrum's early days, *Egghead In Space* was good enough to make it a solid start for the software house and harks back to classic adventures such as the Oliver Twins' *Dizzy* and Mikro-Gen's *Pyjamarama*. Egghead has gone on to star in two more adventures, 2006's *Egghead Entertains* and *Egghead Round The Med* a year later.



CYBERWING

C64, 2004

■ Coded by **Retro Gamer**'s very own homebrew correspondent, Jason Kelk, *Cyberwing* originally appeared in issue 13 of *Commodore Zone* magazine back in the late Nineties and is an excellent little shoot-'em-up that evokes many of the Commodore 64's supreme scrolling shooters of old. It's workman-like plot is enlivened with some entertaining descriptions (we especially like the sound of the mattersplatter bombs) and while admittedly not the most graphically complex of efforts, *Cyberwing*'s simplicity and nicely-balanced gameplay make it a another solid addition to the Cronosoft catalogue.



» [C64] The excellent *Balloonacy*, another Commodore Zone game reissued by Cronosoft.

progress – and ask if I might be interested. I'll give it a try, and I can see within ten minutes or so if it's going to be something for us." Simon looks for two things in particular: depth and gameplay. "Sure, sometimes awesome graphics can impress," he admits, "but it's the long-lasting appeal that is the key. I ask myself, 'If I paid £5 for this game, would I be disappointed or happy?' There are lots of examples through the Spectrum's history where a game can look great but play worse, and there are also lots of examples where the opposite is true; look at Firebird's *Viking Raiders* or Crystal Computing's *Halls Of The Things*. I look for that hidden gem that might not immediately grab you." Graz agrees, noting, "It has to be a pick-up-and-play title, something that stands on its own, and even with years of Spectrum history behind it, still shows originality in some form." Once Simon has decided the game is a potential candidate, artwork is planned, printing outsourced and a master CD created from which to make the duplicate cassettes. "It's just then a case of getting an initial small run together."

After the success of *Egghead In Space*, Jonathan Cauldwell offered more titles to the new software label, including the *Bubble Bobble*-esque platformer *Gloop And The Gunsmoke*-inspired *Dead Or Alive*. However, it was already becoming apparent to Simon that there were two tape-related issues, one harking back to the Eighties, the other a more modern problem. "Non-working tapes! A real problem is loading faults," he grimaces. "I can copy a game onto a cassette that then loads up fine on my setup, but that can then cause problems on someone else's due to

KELK ON CRONOSOFT

Our very own homebrew expert tell us about how he became part of the Cronosoft story

"I did *Reaxion*, *Cyberwing* and *Warflame* on the C64, and *ViColumn* on the VIC-20. The first three were originally all put out by *Commodore Zone*, although, strictly speaking, *Reaxion* was originally a cover mount for *Commodore Format*. Simon approached me about doing something for Cronosoft on a forum, and *Reaxion* was the first release since it only needed a few tweaks, a loading screen, and the tape and mastering done. I think it's great what Cronosoft is doing; as a coder, there's a lot to be said for seeing your work on real media, it seems much more substantial! I'm not doing much more at the moment, but that's more to do with my mindset – I can't work on demos and games at the same time, they're too different. But, yeah, good luck to them."



FARMER JACK IN HARVEST HAVOC!

ZX SPECTRUM, 2006

■ Finally, almost 25 years the original game's release, the Spectrum got a decent version of *Mr. Do!*. Coded by Bob Smith, *Harvest Havoc* was the first in his famous rustic series. Ten years later, the game is still fantastic, and puts most of the unofficial clones of yesteryear to shame – and many of the official ones, too. Bright, colourful graphics, sharp controls and a nice difficulty curve combine to make *Harvest Havoc* a solid winner. There have been two more subsequent adventures for Farmer Jack, *Hedge Monkeys* and *Treasure Trove*.

S.E.U.D (SHOOT-'EM-UP DESIGNER)

ZX SPECTRUM, 2008

■ Following on from his successful *Platform Game Designer*, Jonathan Cauldwell trained his sights on a game-creation tool for another popular ZX Spectrum genre: the shoot-'em-up. The utility is an all-in-one package that enables those with little coding disposition to create their own shoot-'em-ups, manipulating graphics, backgrounds and attack patterns. For anyone who dreamed of creating their own Spectrum games back in the Eighties, but lacked the knowledge or drive to do so, *S.E.U.D.* presents the perfect opportunity to do so.

DEEP CORE RAIDER

ZX SPECTRUM, 2016

■ Bestowed with a very commendable score of 8/10 in issue 156 of **Retro Gamer**, *Deep Core Raider* is an excellent *Cybernoid*/*Thrust* mashup written by Paul Jenkinson of The Spectrum Show fame. The player takes on the role of one of the eponymous pirates, looking to alleviate several moons of their valuable minerals. The key to success is negotiating each screen's guns with a combination of thrust and timing, and the game has an exquisitely clean, well-defined look and balanced gameplay. For more fun, check out Paul's equally-impressive *Toofy In Fan Land*, also released by Cronosoft in 2016.



» [ZX Spectrum] The superb, and quirky, shoot-'em-up *More Tea, Vicar?* from Jonathan Cauldwell.

differences in tape decks. Back in the Eighties, most people would have had a fairly new tape deck with their computers. However, fast forward 30 years and those existing tape players now likely have degrading belts and heads." In addition, more 'modern' tape players are also often problematic. "Tape decks bought relatively recently use stereo tape heads in a mono device, which can play havoc with the tapes, especially on the original Spectrum," says Simon.

Additionally, a 21st Century-style drawback for tape production is the acquisition of the tapes themselves. Back in 2002, when Cronosoft began, it proved comparatively easy for Simon to obtain spare blank cassettes. "Everyone was getting rid of stock cheaply," he recalls, "and there were loads of places where you could get 'cut to the specified length' tapes for very title." Inevitably this supply has dried up, as very few, if any, tape cassettes are manufactured today. "There are considerably less bargains to be had, and prices are now around 300 per cent higher than before," bemoans Simon. Graz highlights a different pitfall, one also familiar from 30 years ago. "Getting a title out on time can be a nightmare as there's so much to consider. We've had a few games where another company have released the game ahead of us, leaving a lot of hard work wasted."

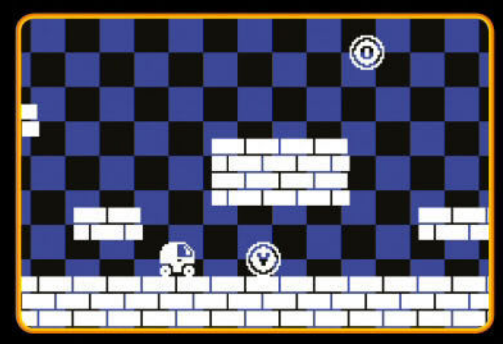
Through the mid-Noughties, Cronosoft continued to produce exceptional games, chiefly on the popular Sinclair computer. "Around 90 per cent of our sales are on the Spectrum," notes Simon, "and although we've had Amstrad, VIC-20, ZX81, Dragon, C16 and BBC releases in the past, none of them have sold like the Speccy games." Two games by the Shaw Brothers (prolific late-era Spectrum coders for budget house Atlantis) and Jonathan Cauldwell's excellent *Fun Park* followed in 2004, before Bob Smith, another veteran coder from the Eighties, contacted Simon with an unreleased game from 1989 called *Stranded*. It wasn't

THE DNA OF CRONOSOFT



NOSTALGIA

■ While the digital download format rightfully dominates modern gaming, there's much nostalgia to be still gained from a small plastic box and cassette, nostalgia that reminds gamers of those glorious, heady 8-bit days. Cronosoft taps into that with a genuine, tactile product.



QUALITY PRODUCT

■ Although Simon Ullyat's early attempts at creating artwork might be a touch (he admits himself) lacking, the care and attention that goes into every single release has never been in doubt, from the physical components, to – most importantly – the actual games themselves.



BEDROOM CODER SPIRIT

■ No in-house team. No marketing department. Cronosoft is simply Simon and (sometimes) Graz Richards, eyeing up submissions for potential publishing, games usually submitted by one person, such as Jonathan Cauldwell, working from home – just like the good old days.

> **"We hung out with Matthew Smith a bit. We were getting him to write a game for us"**
> Simon Ullyat

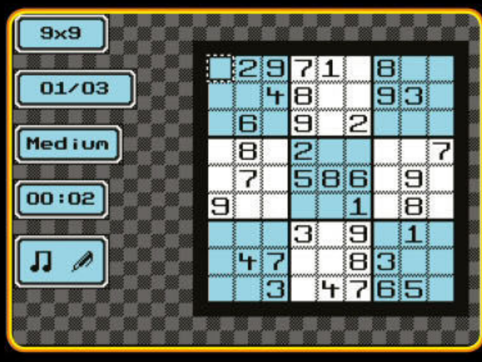
long before a string of brilliant Bob Smith games were being published by Cronosoft. "[Bob's] games have a certain look and fluidity about them," gushes Simon, "and he loves to do something different, and push the boundaries of a machine to the limit. Take a look at some of his ZX81 work such as *Ant Attack*, or the Speccy game *SplATTR*, and you'll see what I mean."

Interestingly, Simon has rubbed shoulders with two more legendary coders in the past, who have both tantalised new games for the computer. "Back at the first CGE show in Croydon in 2004, we had a stall selling Cronosoft titles as well as other retro gear," he remembers. "And we hung out with Matthew Smith quite a bit. We were getting so close to persuading him to write a game for us – that would have been an awesome experience!" Cronosoft was also in contact with the late Jonathan Smith and planned to release a new game of his, entitled *Saucer*. "I've just had a look through some of his emails. I chuckled to myself at one of them, where he told me to feel free to tell him if something was shit about his game. As if I'd tell Joffa Smith his work was shit!" laughs Simon.

We begin to wrap things up by enquiring of Graz and Simon about Cronosoft's future. "I think it's time to put a bit more work into it," admits the latter, "as mainstream interest in retro gaming seems to be gaining momentum. People love owning games, and buying a game on cassette or disk is like owning a vinyl record as opposed to a download: it adds value, not just to the collection but to the game itself. Plus you're showing a little bit of appreciation to the game's creator. So I think it's time to leave the back catalogue alone and concentrate on pushing some fresh releases." Graz Richards believes the market for more homebrew retro is still fresh and keen for more games. "We are in love with these machines and just want more! And for me, I admire the way the authors portray stories using each machine's characteristics. I also just happen to prefer the way the Spectrum handles them!" Cronosoft's chief contributor, Jonathan Cauldwell, also feels the future is bright for the software house should time permit. "Generally, I try to reserve my best and/or original titles for Cronosoft as Simon is a decent chap and knows his retro machines inside out, and runs it for fun rather than profit. I dare say they'll be releasing many more of my games." Away from the ZX Spectrum, new releases on hitherto-unexplored platforms such as the Oric and Atari 8-bit remain on Simon's radar. "And maybe I'm being daft, but I'd love to release games for even more obscure systems such as the Sord M5 or Sharp MZ!"

But to do this, Cronosoft needs help. "Send us some games!" smiles Simon. "Or if you're a terrible programmer, then buy some instead!" ★

For news about Cronosoft, head over to cronosoft.orgfree.com or if you've got an idea for a game, contact Simon at cronosoft@rocketmail.com.



» [Amstrad CPC] The CPC version of *Sudoku*, as coded by Kevin Thacker.

WHERE ARE THEY NOW?



SIMON ULLYAT

■ In between other commitments, Simon is still running Cronosoft today, and is harbouring ambitious thoughts of publishing games on a much wider range of formats. Watch this space!



GRAZ RICHARDS

■ Today, Graz splits his time between Cronosoft and his own software house, Monument Microgames. Monument is a non-profit venture, and its most notable release has been arcade adventure *Cray_5*. Monument can be found at monumentmicrogames.com.



JONATHAN CAULDWELL

■ Jonathan is currently putting the finishing touches to *Gamex 2*, a follow-up to his 2006 minigames extravaganza. He's also planning a special updated version of his *Arcade Game Designer* utility and pondering over whether to convert some of his earlier games to the Amstrad CPC. Go, JC!

BOB SMITH

■ At this moment Bob is working on an isometric sheep-themed puzzler entitled *SokoBAAn*. Head over to the Bob's Stuff page on Facebook for updates on all Bob's works in progress.



LONGEVITY

■ Although it's a strictly part-time venture for Simon and Graz, Cronosoft has outlasted many other similar attempts at creating modern-day, retro-focussed software house over the years and is still operating today. If you've got a game, then the team is waiting to hear from you!



VARIETY OF PLATFORMS

■ Despite a large percentage of its releases coming on the ZX Spectrum, as well as a history of catering for that system, Cronosoft is still keen to publish software on a wide range of platforms from the Dragon 32 to the ZX81. If it's a good game, and marketable, Cronosoft will put it out.



VALUE FOR MONEY

■ Simon's remit is to charge as little as possible, meaning most games still sell at a reasonable £5.00 (posted) each. Cronosoft is also non-profit, helping to generate huge community spirit and goodwill. A love of the old systems and a desire to maintain that love is another driving force. And royalties are paid!



» PUSHING THE LIMITS

The Adventures Of Batman & Robin

Clockwork Tortoise was only a one-hit wonder, but its hit showed the extent of the Mega Drive's muscle

» **PLATFORM:** MEGA DRIVE » **DEVELOPER:** CLOCKWORK TORTOISE » **RELEASED:** 1995

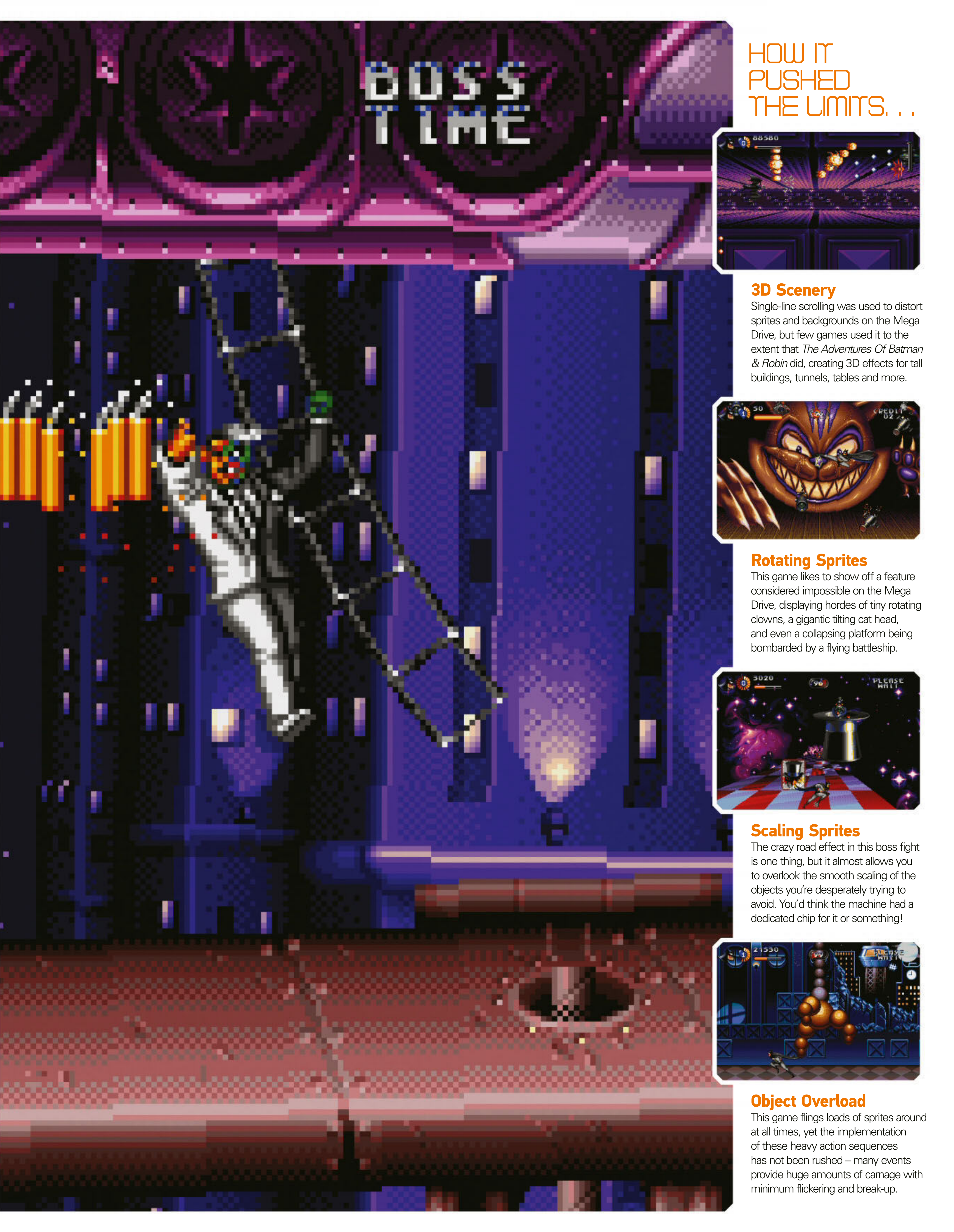
If there was a Mount Rushmore of awesome Mega Drive developers, Clockwork Tortoise probably wouldn't be on it. That's not because of a lack of coding skill, but because it simply didn't live long enough. The likes of Treasure and Traveller's Tales made a variety of impressive games, but Clockwork Tortoise only managed one before collapsing.

The lead programmer at this intriguingly-named developer was John O'Brien, a talented coder known for his work on games like *Chase HQ* for the ZX Spectrum and *Batman Returns* for the Mega-CD. For *The Adventures Of Batman & Robin*, a late-era Mega Drive run-and-gun based on the cartoon series, he really let his skills fly – just about every special effect that could be coaxed out of the machine was exploited. From rotating and scaling sprites to the pseudo-3D scenery and objects, like an enormous crane which attempts to squash our hero, nothing was off limits. The system's shadow and highlight mode was even used to simulate true transparent light with enemy torches!

That's not all, as the soundtrack by Jesper Kyd was able to pump some dark and bass-heavy sounds out of the tricky YM2612 chip. In particular, the first boss track, the collapsing platform fight and the psychedelic section (tracks 1, 16 and 10 in sound test) stand out as rivals to even Yuzo Koshiro's *Streets Of Rage* soundtracks.

The gameplay wasn't quite as beautiful as the audiovisual aspects of the game, sadly. While the underlying mechanics were solid, in order to see the next amazing technical feat and hear the music that went with it, you'd have to plough through some incredibly long and tough levels. Unfortunately the excessive length of the stages makes for some major repetition, too, with the same enemies cropping up over and over again.

These game design mistakes could have been improved during the development of Clockwork Tortoise's next project, the Marvel licence *X-Women* – a game once slated to be the final first-party Mega Drive game. However, mismanagement sank the studio before the game could be completed, with only the Mega Drive and Mega-CD versions of *The Adventures Of Batman & Robin* to its credit. ✱



HOW IT PUSHED THE LIMITS. . .

3D Scenery

Single-line scrolling was used to distort sprites and backgrounds on the Mega Drive, but few games used it to the extent that *The Adventures Of Batman & Robin* did, creating 3D effects for tall buildings, tunnels, tables and more.

Rotating Sprites

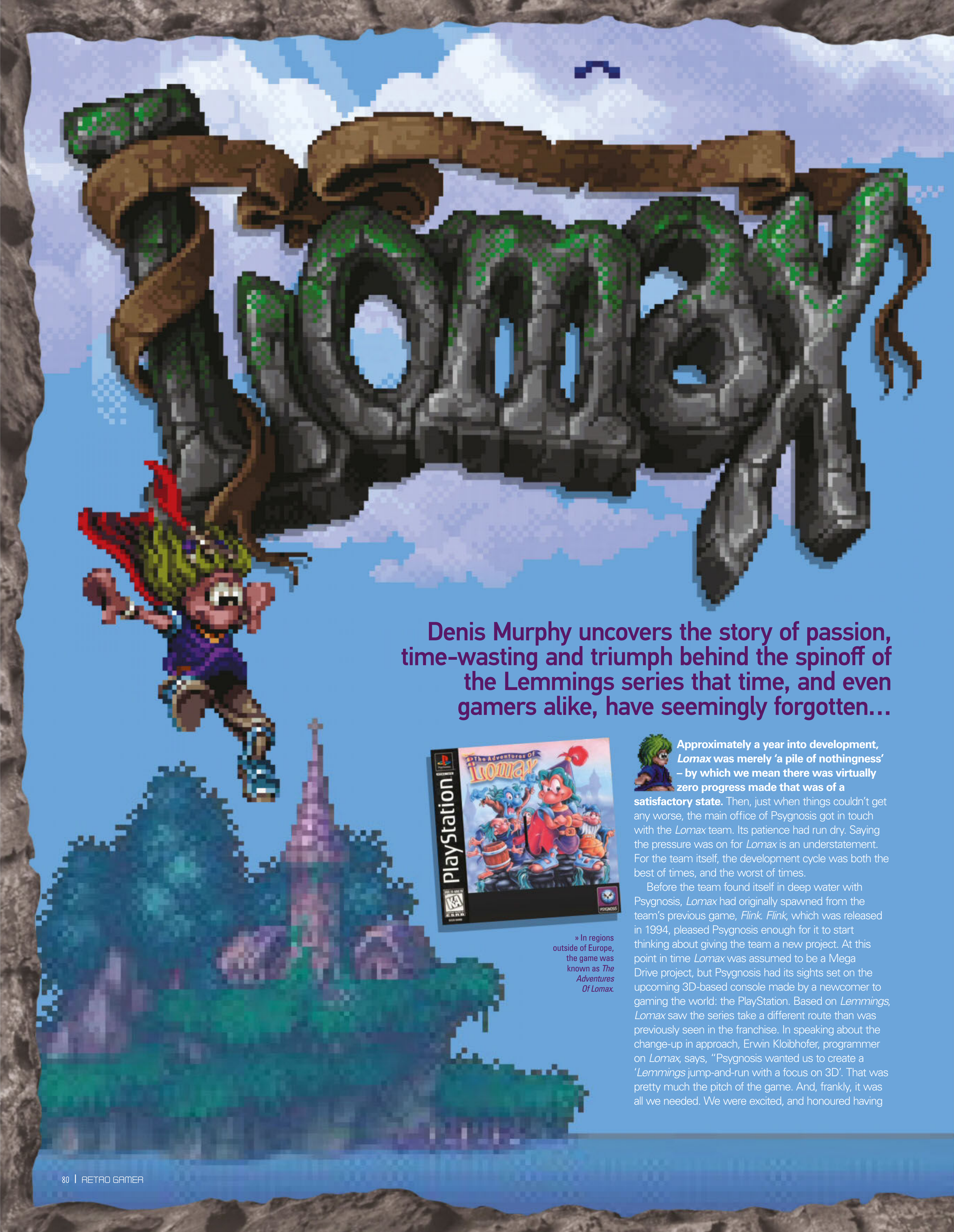
This game likes to show off a feature considered impossible on the Mega Drive, displaying hordes of tiny rotating clowns, a gigantic tilting cat head, and even a collapsing platform being bombarded by a flying battleship.

Scaling Sprites

The crazy road effect in this boss fight is one thing, but it almost allows you to overlook the smooth scaling of the objects you're desperately trying to avoid. You'd think the machine had a dedicated chip for it or something!

Object Overload

This game flings loads of sprites around at all times, yet the implementation of these heavy action sequences has not been rushed – many events provide huge amounts of carnage with minimum flickering and break-up.



Denis Murphy uncovers the story of passion, time-wasting and triumph behind the spinoff of the Lemmings series that time, and even gamers alike, have seemingly forgotten...

» In regions outside of Europe, the game was known as *The Adventures Of Lomax*.

Approximately a year into development, *Lomax* was merely 'a pile of nothingness' – by which we mean there was virtually zero progress made that was of a satisfactory state. Then, just when things couldn't get any worse, the main office of Psygnosis got in touch with the *Lomax* team. Its patience had run dry. Saying the pressure was on for *Lomax* is an understatement. For the team itself, the development cycle was both the best of times, and the worst of times.

Before the team found itself in deep water with Psygnosis, *Lomax* had originally spawned from the team's previous game, *Flink*. *Flink*, which was released in 1994, pleased Psygnosis enough for it to start thinking about giving the team a new project. At this point in time *Lomax* was assumed to be a Mega Drive project, but Psygnosis had its sights set on the upcoming 3D-based console made by a newcomer to gaming the world: the PlayStation. Based on *Lemmings*, *Lomax* saw the series take a different route than was previously seen in the franchise. In speaking about the change-up in approach, Erwin Kloibhofer, programmer on *Lomax*, says, "Psygnosis wanted us to create a '*Lemmings* jump-and-run with a focus on 3D'. That was pretty much the pitch of the game. And, frankly, it was all we needed. We were excited, and honoured having




» [PlayStation] Henk Nieborg's pixel art is striking, colourful and breathes tremendous life into *Lomax*.

been entrusted with that task. So, opposed to *Flink*, where we first had to come up with a detailed pitch and playbook, for *Lomax* Psygnosis just said, 'Go!'" Without a design document to aid him, Erwin left Austria to work with artist Henk Nieborg in the Netherlands.

With Henk providing his incredibly unique pixel art that was previously showcased in *Flink*, Erwin was at hand to turn this artwork into a working game, and with the power that was the new 3D hardware of the PlayStation in their hands, everything was seemingly in place for a whirlwind of creativity. However, that didn't happen, and this is where *Lomax* was brought to the brink of cancellation. With a sudden influx of money both Henk and Erwin, by their own admission, focused on their private lives instead of meeting the deadlines that Psygnosis set out before them. Erwin reveals what went wrong in saying, "The problems… there were many. The core of it all was that we were young men that started to get a taste of the 'sweeter sides of life' – to put it that way. We put a little too much focus on our private lives, rather than our professional lives. It was a stark contrast to how we conducted ourselves previously while creating *Flink*. With *Lomax*, that machinery was completely broken. Instead of pushing each other forward, we dragged each other down, because neither of us managed to produce exciting 'work' to inspire the other. We enjoyed our private lives fully, but professionally those days were horrible. Psygnosis tried to push us because the PlayStation release was around the corner. We came up with cringe-worthy excuses we why hadn't met our short-term goals. The mood was really bad."

Though there was some progress done, Henk himself claims that only 25 per cent of *Lomax* was completed after it was in development for 12 months. With various deadlines missed and a mere shell of a game complete, Psygnosis had had enough. It was at this point where the publisher demanded that both Henk and Erwin continue development under its watchful eyes at their Liverpool offices. Sitting next to each other alongside Psygnosis' *WipEout* team, the pressure to finish *Lomax* was on and, amazingly enough even to Henk and Erwin, they pulled it off.

In describing the rejuvenation of the project, Erwin says, "For two months we literally worked our asses off. We worked non-stop every single day of the week, and lived off coke and pizza. We got our mojo back, the machinery was running at full speed again, ideas were sparkling, and we were endlessly enthusiastic! It was truly amazing!" Henk echoes Erwin in saying, "People on the other teams around us looked at us, as if to say, 'How could you work so hard?' Well, they didn't know that pretty much the 12 months before that was like an endless holiday to us… Our producers were once again excited and hopeful. From a 'pile of nothingness' we had created something that resembled a real game! Our producers literally said that we had pulled off a miracle. In hindsight, those two months were the best time of our lives – the proudest ones for sure!



» [PlayStation] Before starting each level, the player can see how closer they are to Evil Ed.

ANIMATED SERIES

Psygnosis had such confidence in the project that its sights were set beyond the game itself, and instead on the *Lomax* universe as a whole. *Lomax* was to be released alongside an animated cartoon that was set within the *Lemmings* mythos. This made sense, to a certain extent, given Mario and Sonic's success in animation, but *Lemmings* was undoubtedly a smaller brand. That said, this idea got so far into development to the point that Psygnosis even hired an American animation studio to produce the series. Henk Nieborg was shown a number of character designs from the proposed series, two of which he later adapted for characters that appeared in *Lomax* itself. The first character from the series that he repurposed was 'Knight', who was later changed into the hero Lomax himself, while the second character was 'Lorock', a character who appears in the finished game as your guide. At some point during development of *Lomax* however, the series was shelved. It's unknown to both Henk and Erwin the exact reasons as to why it never saw the light of day, but it may be because either the team didn't make enough substantial progress on the game in time, or the fact that the *Lemmings* series, by the mid-Nineties, was quickly running out of steam and fan recognition.

IN THE KNOW

» **PUBLISHER:** PSYGNOSIS
» **DEVELOPER:** PSYGNOSIS
» **RELEASED:** 1996
» **PLATFORM:** PLAYSTATION, PC
» **GENRE:** PLATFORMER

DEVELOPER HIGHLIGHTS

LEMMINGS
SYSTEM: VARIOUS
YEAR: 1991

FLINK
SYSTEM: VARIOUS
YEAR: 1994

G-POLICE
SYSTEM: PLAYSTATION, PC
YEAR: 1997

Lomax is a spinoff of the classic *Lemmings* series, created by David Jones and Mike Daily at DMA Design in its pre-*Grand Theft Auto* days. Where *Lemmings* was a classic puzzle game, *Lomax* was completely different, more in style with the likes of *Rayman* (which had been released the previous year) with cute-looking characters and gorgeous environments. The story behind *Lomax* was simple: Evil Ed has transformed Lemmings into monsters and it's up to the player, with the use of their trusty magic hat and an array of special abilities – such as building ledges, digging holes and floating – to defeat Evil Ed and restore the Lemmings back into their original forms. From leaping from platform to platform, using your spin attack to defeat enemies, to collecting coins, on paper *Lomax* may sound like every other platformer you've ever played. It's true – at its heart it is quite a typical affair, but it's robust, fun and quirky, and is a game that is both familiar yet fresh. Henk says, "I thought, combining the Lomax character with its special *Lemmings* abilities, and running around in beautiful pixel worlds with some great gameplay ideas



» [PlayStation] Defeating enemies in *Lomax* who where cursed by Evil Ed will release the trapped innocent Lemming within.

"I never looked at the other Lemmings games for inspiration"
Henk Nieborg

would make this game quite interesting. I never looked at the other *Lemmings* games for inspiration graphically or design-wise, to be honest. I was more focused on popular platformers that were around at that time. I was very much into playing Nineties Nintendo, Capcom and Konami stuff back then (and still am!)."

Without a doubt, the focal point of *Lomax* is Henk's pixel art. From its character designs to the unique assortment of levels that range from lush vine-covered forests to desolate plains, *Lomax*, above all else, is one of the most visually striking-looking games of the Nineties. Taking what he learned during *Flink* and building upon it, there's an absolutely gorgeous sense of movement, speed and life present within *Lomax*. During the Nineties the gaming world was still awash with countless *Sonic The Hedgehog* wannabes, but while *Lomax* didn't shake up the genre itself in any particular defining way, it did give the player a stunningly-realised world and fun, fast gameplay. Henk remarks, "Some people even see *Lomax* as a sequel to *Flink* which kinda makes sense as I did the design and graphics on both games. The fact that it was another platformer also contributes to it. I also started to improve my pixel skills even more which all happened naturally. *Lomax* just became bigger and better than *Flink* as I intended it to, especially in terms of control and gameplay. I was able to use more colours and memory on the PlayStation, which was totally cool, of course. Actually, I went a bit crazy and ending up using too many colours. I still was in a learning curve back then. If I remember correctly we

SIX UNLIKELY SEQUELS

More games that broke away from the norm



ZELDA II: THE ADVENTURE OF LINK

NES, 1987

■ In a complete departure to what Nintendo did with the first *Legend Of Zelda* game, *The Adventure Of Link* designed much of its gameplay from a side-scrolling perspective. Though the overworld remains essentially the same, gamers at the time were taken aback with its different take on battling and NPC interactions.



PAC-MAN 2: THE NEW ADVENTURES

SNES, MEGA DRIVE, 1994

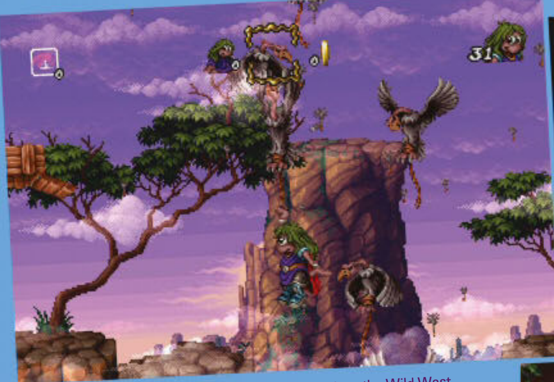
■ Though *Pac-Man* was followed up with a number of sequels, *Pac-Man 2: The New Adventures* was the first time the series stepped away from its tried-and-tested formula. This time around a side-scrolling adventure with puzzle elements, it's a mediocre if interesting entry in the series.



MORTAL KOMBAT: SPECIAL FORCES

PLAYSTATION, 2000

■ Chronologically the first entry in the *Mortal Kombat* series, *Special Forces* has the player solely playing as Jax, and changes up the typical *Mortal Kombat* one-on-one gameplay into a third-person fighter affair while also featuring elements of exploration, ultimately coming across a poor man's *Fighting Force*.


» [PlayStation] Each level has unique moments, such as the Wild West stage in which you need to grab vultures to get across a chasm.


» [PlayStation] Levels aren't just played on a 2D plane. Instead, they have depth to them that you must navigate in and out of.

even started having memory issues on the PlayStation as well to get all our stuff in there at once!"



Despite its ups and downs, both Erwin and Henk remember *Lomax*'s development fondly. As Henk says, "*Flink* might have had a smoother development period, but *Lomax*'s still my favourite because it felt more like 'rock and roll'. We found how it feels to be completely uninspiring about your own project, and all the negative things that come from that but also recovering magically in the end. That's something I never experienced before. In those final two months I could go crazy on the pixels and designing levels at the same time and we had a nice game on our hands. Unfortunately, the media didn't care much about 2D pixels on a 3D machine anymore when it was finally released. Working on *Lomax* with Erwin was just the best experience ever and I know he feels the same about it. People still like it today as there is some kind of timeless magical thing about pixels when done right." Erwin echoes his sentiment saying, "At the end, we are pleased with the beauty of the game – it sure is pleasing to the eye. It's kinda easy to get the hang of the game, that's all good. It's a nice and enjoyable feel-good game. And we finished it! Something that we almost lost hope in to achieve altogether."

Off the heels of *Flink* and hurled into the big-time with Psygnosis and Sony in their corner, Erwin and Henk are the first to put their hands up and admit their shortcomings during *Lomax*'s first leg of development. Both Erwin and Henk are adamant that, if they focused during development from the outset, it would have been something quite special. "What was lacking was that we didn't give our all for this game (that it would have deserved) for the entire time of development – but only the last two months," admits Erwin. "It would probably be a different game, if we had the same enthusiasm level that we had with our previous games. Then maybe, *Lomax* would have really stood out from the crowd. It wasn't meant to be for this title. Sometimes boys need to be boys. And for the two hardcore geeks that we were, it was about time for us…" However, even after essentially squandering a year of development time, when the chips where down, time was running out, and with Sony and Psygnosis baring down over them, Erwin and Henk pulled it out of the bag. Often verging on becoming a pedestrian title, *Lomax* nonetheless offers fast and frantic gameplay, surrounded by incredible pixel art and an utterly superb soundtrack by Andrew Blythe and Marten Joustra. Embracing both fans and non-fans of the *Lemmings* series, it may be seen as the final chapter of the original 2D pixel art platofrmer era. *Lomax* may not be perfect by any means, but it's undoubtedly a success.



X-COM: ENFORCER
PC, 2001

■ The final game in the original *X-Com* series until the series' reboot, *X-COM: Enforcer* changed up the gameplay dramatically. No longer did *X-COM* place its focus on strategy, but instead it was a fully-fledged third-person shooter. There's probably a reason why this was the last we heard of the franchise until 2012…



STAR FOX ADVENTURES
GAMECUBE, 2002

■ Originally developed as *Dinosaur Planet*, a game which initially had no *Star Fox* connection whatsoever. *Star Fox Adventures* took the action away from cockpit and placed the player on-foot in an action adventure environment. Coming across as more *Zelda*-inspired than anything else, the game was met with a mixed response.



FINAL FANTASY VII: DIRGE OF CERBERUS
PLAYSTATION 2, 2006

■ This was, alongside the film *Advent Children*, a direct sequel to Squaresoft's much-loved RPG. However, in a complete sidestep to what *Final Fantasy VII* brought to the table, *Dirge Of Cerberus* focuses on the character of Vincent Valentine and features third-person shooter gameplay.



PlayStation Portable

» MANUFACTURER: Sony **» YEAR:** 2004 **» COST:** Launch: £179, Today: £40

The mobile landscape has changed dramatically in recent years, but before the rise of phones and tablets it was the dominion of one company and one company alone – Nintendo. Over the years the Kyoto-based firm had seen off the likes of Sega, SNK, Bandai and Atari with ease, and had turned its humble Game Boy into one of the industry's most recognisable brands.

In the same year that Nintendo released the DS, Sony saw fit to release its first portable console, the PSP. Unlike the gimmick-led DS, Sony's console was an absolute beast, delivering graphical power that some felt was on par with the company's PS2. Launching in Japan in December 2004, the console was met with huge success, shifting over 200,000 units and bolstered by strong launch titles such as *Ridge Racer*, *Lumines*, *Everybody's Golf* and *Darkstalkers Chronicle: The Chaos Tower.* Less impressive was Sony's Universal Media Disc (UMD) which was used to store games and movies and was prone to breaking, and the PSP's need for expensive, bespoke memory sticks (a 1GB card at launch cost a staggering £100).

While far from perfect, the PSP was a big success for Sony, mainly due to strong publisher support – exclusives of *GTA*, *COD* and *Monster Hunter* all appeared on the system – and it sold close to 82 million units. Small fry when placed up against the 154 million sales of the DS, but astonishing for a company dipping its toes in an aggressive market for the first time.

EDITOR'S PICK

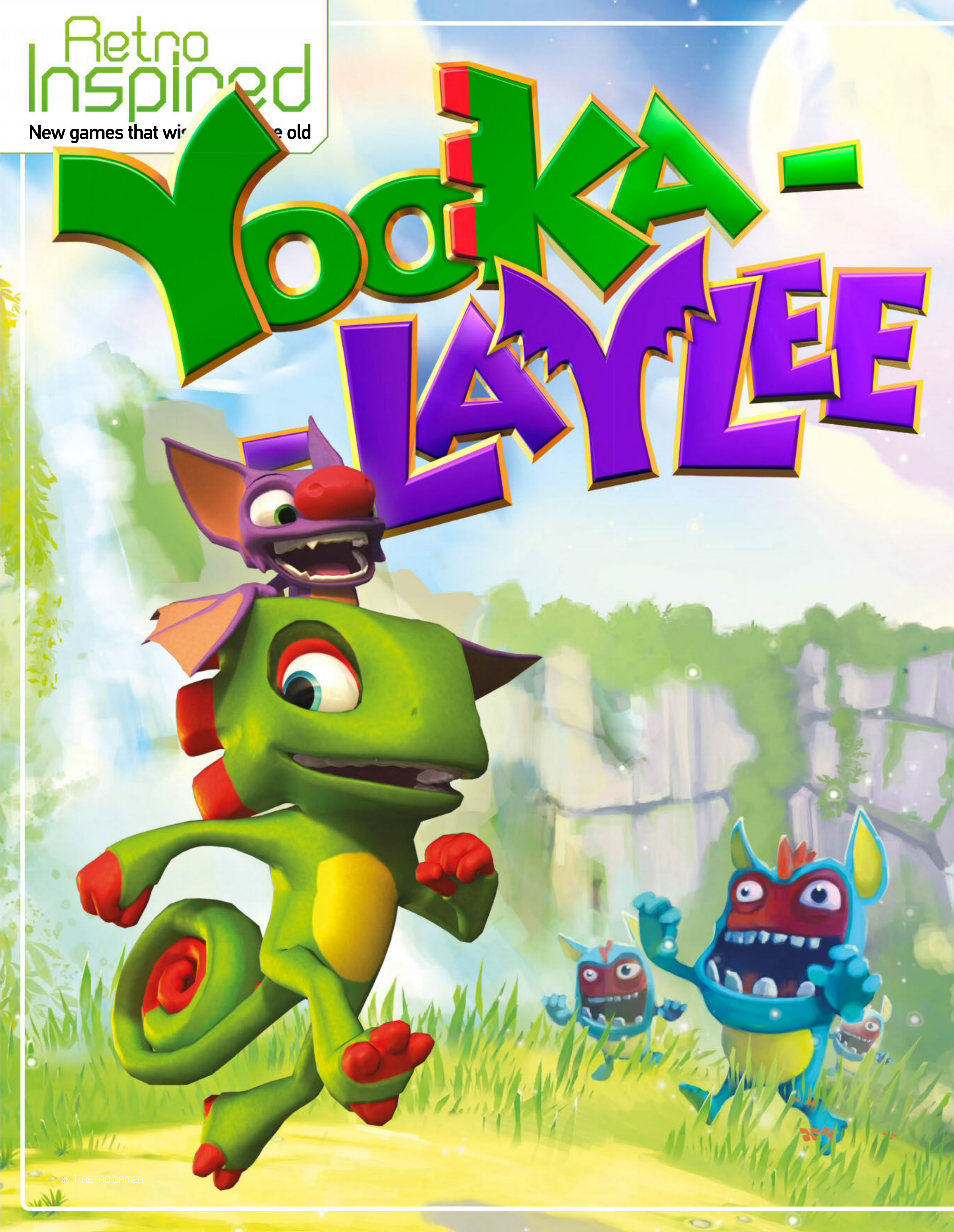
Monster Hunter Freedom Unite

Although it launched on PS2, Capcom's monster-hunting franchise really found its home on Sony's PSP. Essentially an expansion of *Monster Hunter Freedom 2, Freedom Unite* added a Felyne fighter who would help players on quests, new 'Epic Hunting Quests' that let players tackle up to four consecutive monsters, as well as numerous new items and weapons to experiment with. Amazingly intuitive and with thrilling boss encounters, *Freedom Unite* built on the franchise's novel approach to levelling up, where it was the player's own experience and the continual upgrading of armour and weaponry that became the key to salvation.

PlayStation Portable fact

■ In addition to having an incredible selection of retro compilations available, various hacks have ensured that the PSP also has huge homebrew and emulation support, providing you have suitable firmware...

eDRAM: 32MB
CPU: SONY CXD2962GG
SCREEN SIZE: 4.3 INCHES
MEDIA: UMD
SALES: 16.77 MILLION


Yooka-Laylee

A GROUP OF FORMER RARE DEVS PROMISED TO RESTORE THE 3D PLATFORMER TO FORM. NICK THORPE TALKS TO GAVIN PRICE TO LEARN HOW PLAYTONIC HAS CRAFTED A NOSTALGIC EXPERIENCE FROM TODAY'S TECHNOLOGY…





In the late Nineties, the 3D platform genre was an enormously hotly-contested market. Less prominent mascots, such as Croc, could break the million sales mark, and superstar franchises could easily go multi-platinum. But while the PlayStation had its hits and the Dreamcast's most successful game was a 3D platformer, the Nintendo 64 was the place to be if you wanted to experience the best that the genre had to offer. A key reason for this was Nintendo's ownership of Rare – the company was only able to develop for the N64, and delivered a trio of 3D platformers that achieved multi-million sales in *Banjo-Kazooie*, *Banjo-Tooie* and *Donkey Kong 64*. Additionally, it developed the critically-acclaimed but less commercially-successful adult-oriented game *Conker's Bad Fur Day*.

Fast-forward a couple of decades to the present day, and the 3D platform genre has declined in importance. As a former tester and game designer for Rare, Gavin Price has his own theory as to the cause of this phenomenon. "One reason might be that as consoles became more and more powerful, the way developers would show off the power is to make their games more realistic. There's been a trend in that direction," he notes. Gavin and a number of his former colleagues from Rare envisioned a break from that trend, and banded together to form Playtonic Games in 2015. The new developer soon announced *Yooka-Laylee*, a spiritual successor to those N64 hits. "It came down to following our passion," Gavin explains when asked why the Playtonic team chose to break away and pursue this platform revival. "It's a style of game that we all love to play. After watching the indie scene explode, it was just a matter of time before a few of us all hit the tipping point and thought, 'Let's do this!'"

Playtonic chose to rely on the fans by turning to the crowdfunding platform Kickstarter, a decision which was vindicated when *Yooka-Laylee* became the fastest game to hit $1 million on the website. However, this model comes with its own challenges. "A successful Kickstarter brings with it a huge amount of non-dev work such as game fulfilment, merchandise creation and the increased communication your backers expect when pledging their support – all of which can be incredibly disruptive to development if not planned properly," Gavin notes. "For that reason, it's important to have someone on the team who's very good and focused at business development, marketing and PR."

With all of those challenges in mind, why didn't Playtonic go for a more traditional funding model? "The upside is we've been able to keep our independence and create a game of a much larger scope than previously possible," responds Gavin. The studio had hoped to raise £175,000 as its initial target, and ended up with a final tally of £2,090,104. Overall, crowdfunding is an experience that he looks on positively.



» [PC] *Yooka-Laylee* benefits from enormous worlds and high levels of detail beyond the N64's capabilities.



» [PC] Don't call him a fruit machine – he's most definitely a one-armed bandit.



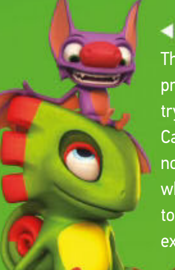
IN THE KNOW

- » **PUBLISHER:** TEAM17
- » **DEVELOPER:** PLAYTONIC GAMES
- » **RELEASED:** 2017
- » **PLATFORM:** PS4, XBOX ONE, SWITCH, PC, MAC, LINUX
- » **GENRE:** 3D PLATFORM



MEET THE CAST

Who's who in Yooka-Laylee?



YOOKA & LAYLEE

These two serve as the twin protagonists of the game, and they're trying to thwart the corporate fat cat Capital B. Yooka is the green bloke with no pants, an easy-going chameleon, while Laylee is a bat whose sharp tongue tends to get her (and by extension, Yooka) into trouble.



CAPITAL B

Don't take this bee for a buffoon, because he's the main antagonist! Capital B owns Hivory Towers, the factory which serves as the game's hub world, and his goal is to turn the world's literature into pure profit. We suspect he is unpopular at libraries.

DR QUACK

This oddball is the head of Quack Corp, a business that was recently bought out by Hivory Towers. As another of the game's key antagonists, Dr Quack serves to support Capital B by providing key inventions and research – though not all of these were his own work…

DR PUZZ

This squid scientist used to work for Dr Quack at Quack Corp, until her research was stolen and she was left jobless. In order to gain a measure of revenge against her traitorous former boss, she assists Yooka and Laylee in their attempt to thwart Capital B's plans.



TROWZER

You might not be inclined to trust a snake, and especially not one with Trowzer's unfortunate moniker, but this adder is actually a key ally to Yooka and Laylee. He's the primary source of new moves within the game, although you'll have to pay him Quills to learn them.

REXTRO SIXTYFOURUS

Does this dinosaur have chiselled good looks, or is he just a bit low-polygon? Either way, this throwback from the Nineties is a friend to Yooka and Laylee, and acts as a guardian of the arcade cabinets that can be found throughout the game.

"Playtonic was lucky to be able to solely rely on Kickstarter to fund our first game. We built an amazing community at an early stage of development and, at the same time, gained the funds to be able to grow our own team and create a better game. In that way, our backers helped secure the future of not just a single game, but the future of the studio – and we hope they feel the benefit for many years to come."

From the start, it was clear that *Banjo-Kazooie* was the biggest single source of inspiration for *Yooka-Laylee*. The pitch video showed off the various moves and collectable items that were a key part of that game's appeal, and even the logo design and paired protagonists were similar. What was surprising was that Yooka and Laylee weren't quite the cuddly creatures that the bear and bird had been. "The reason we chose a chameleon and bat was because we felt that their innate abilities would make for naturally fun platforming gameplay," we're told. "Laylee being a bat has a whole roster of sonar moves which she can use to stun enemies and smash objects. Meanwhile Yooka can camouflage and sneak past enemies, plus he has a whole host of tongue moves such as the ability to eat objects and absorb their properties."

With fans having invested a lot into a revival of the Nineties 3D platform style, it was important for Playtonic to identify exactly what was appealing about it. "We put a lot of focus on the freedom those games gave to players. There's no giant mini-map or imposing waypoint arrows in *Yooka-Laylee*; the HUD disappears and players are left to explore the world and discover its secrets at their own pace," Gavin explains. "Too many games obsess with hand-holding and hopefully players will find the sense of exploration in *Yooka-Laylee* refreshing."

Rare's work in the Nineties was also distinguished by its humour, delivered through witty dialogue and offbeat characters. This time, the characters play with the fact that they're in a retro-inspired game. "There are

> **"WE BUILT AN AMAZING COMMUNITY AT AN EARLY STAGE"**
> Gavin Price

a few favourites already," Gavin enthuses. "Kartos the minecart is a great metaphor for something old coming back in to play, while Rextro – who is literally a polygonal character from the Nineties waiting around to make friends – has a unique style and position in the game too. What they both stand for can be very appealing to 'gamers of a certain age'… like many of us!"

The thought that has gone into the game's aesthetic goes far beyond the surface, too. "It was also important for this game pitch that we had the look and feel of an old-school platformer, which is why we've brought back the 'gobbledygook' character speech and some of our collectibles are 2D sprites instead of 3D objects." These design decisions would have been forced by the limited technology of the time, but now exist as a stylistic choice. However, there was no struggle involved in achieving this look, as Gavin notes: "It wasn't particularly challenging to make a game that looks and sounds reminiscent of an N64 game, since all of our artists and composers made their names on that platform!"

However, the team didn't just plan to adhere to the template established in the Nineties, and recognised areas in which improvements could be made. "One of the things we were keen to do with this game is to recapture the fun of old Nineties collect-'em-ups, but avoid that monotony that started to creep in to the genre, when there were dozens of different collectibles to find and it started to feel like a resource management sim," explains Gavin. Indeed, retrospective criticism



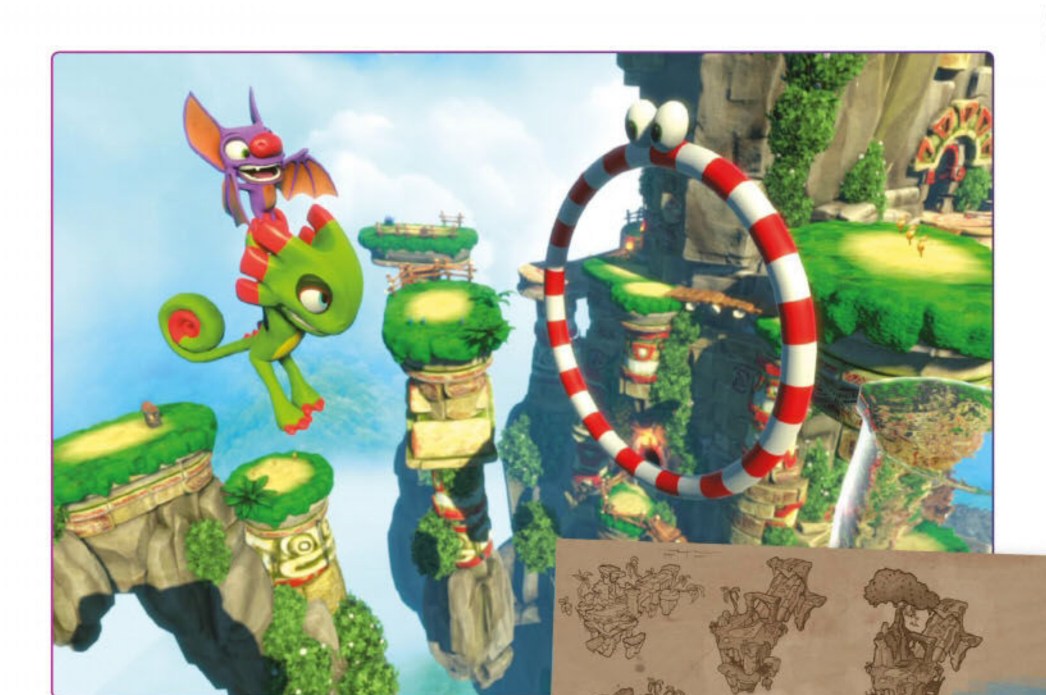





» Each character from *Yooka-Laylee* oozes Nineties-like personality and 'attitude'.



» [PC] What would a Nineties-style platform game be without a mine cart section, really?



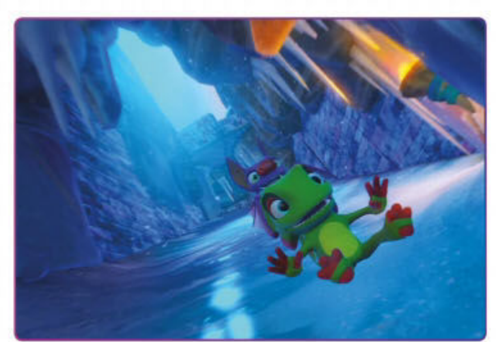
of Rare's N64 games has focused on that issue, with *Donkey Kong 64* proving the most excessive.

"In *Yooka-Laylee*, every collectible has a meaningful role," states Gavin. "For example, there are butterflies in each world that either refill the player's health or the power meter – which charges your moves – depending on if you eat them or 'collect' them. So we keep the tactical choice behind using a special move and that players know it's a finite resource, but you don't have to find multiple items in order to power each one." This is certainly a step-up from the games of old, which gave you a different item for every resource.

While the design expertise from the N64 years has carried over, the technical aspects of development are very different two decades on. "Compared to the N64 days, everything is more complex. Before, we had a single processor for doing everything," explains Gavin, noting the relatively simple architecture of Nintendo's console. "Now you have the graphics processor talking to the CPU, which is talking to something else, which is talking to something else… everything can have a knock-on effect on the game, so it has to be written to a much better standard. On top of that, every asset has to be produced to a higher level of quality," he elaborates. "Even something as simple as fading an object in, which used to require just turning a texture on and off, now involves multiple layers of materials that make an object up. Making games today is a lot more complex."

This complexity puts more of a strain on resources as compared to Nineties development, especially for a small team like Playtonic. "Everything takes that little bit longer now that more detail is required, so you have to be patient when proving out core mechanics and allow room for iteration, whilst keeping one eye on the calendar," Gavin tells us.

» Yup, new games still have concept art! Here's a mock-up of a level that's to appear in the game.



» [PC] Slippy-slidey ice worlds are a staple of the platform genre, and *Yooka-Laylee* doesn't break tradition.

Still, these advances wouldn't have been made if they brought no benefit to the player, and Gavin is pleased to note the new possibilities of modern hardware. "You can have a lot more fun with physics, add richer detail to worlds and use of many things such as real-time shadows which enable everything to feel placed and part of the scene," he tells us. "That definitely helps in platformers because you can read where the collectibles are easier and not mis-jump to collect them. Back in the day it could be difficult to see where they sat or floated and take a couple of attempts to mop up."

With *Yooka-Laylee* now ready to go, we're interested to know if Playtonic has any plans to revisit other older games in the team's back catalogue. "Definitely! There seems to be a lot of shared love for older games from fans and the dev team, and the way we can build them now makes them viable," he enthuses, before explaining the team's philosophy on such projects. "We think it's important to craft something respectful of the past and bring it up to date where required too. Finding that fine line can be challenging, but how games used to be hands-off and let players teach themselves is a good example," he reveals. "If a mechanic is fun then trying, failing and eventually mastering it can be a fun experience whereas nowadays there's a preset tutorial for nearly everything which can taint that fun."

As for *Yooka-Laylee*, besides the obvious hope for commercial success, what are Playtonic's aspirations for the game? "Maybe now people can see that you can go the other way and opt for a more stylised theme [instead of something realistic], and create something that's just as impressive," Gavin responds. *Yooka-Laylee* certainly seems capable of spearheading such a movement – time will tell if it succeeds. *

WHAT DO YOU DO?

Keeping busy in Yooka-Laylee

COLLECT PAGIES



■ Your main goal is to stop the world's books from being turned into profit by Capital B, and to do that you'll need to collect the Pagies that are scattered about each world. Don't expect it to be easy, though – collecting each of them is an individual challenge.

LEARN MOVES



■ If you can grab Quills and visit the friendly salesman Trowzer, you can pick up all manner of new moves for Yooka and Laylee to perform. Here they're performing a circus-style act in which Laylee runs around on top of a rolling Yooka in order to gather speed.

HELP OTHER CHARACTERS



■ There are a whole bunch of non-player characters to meet in *Yooka-Laylee*, and predictably some of them need helping out – often in return for goodies of some kind. After all, the pig Scoffsalot isn't exactly in superhero shape like Yooka and Laylee.

PLAY MINIGAMES



■ If you can track down Rextro Sixtyfourus and his arcade machines, you can take part in a variety of minigames! These include a *Super Sprint*-style racing game called Kartos Karting, as well as the self-explanatory Blag The Flag.

BEAT THE BADDIES



■ As well as a variety of normal enemies found in the regular stages, you'll have to confront some bigger baddies down the line if you want to save the world's books. That means going head-to-head with Capital B and his cronies.



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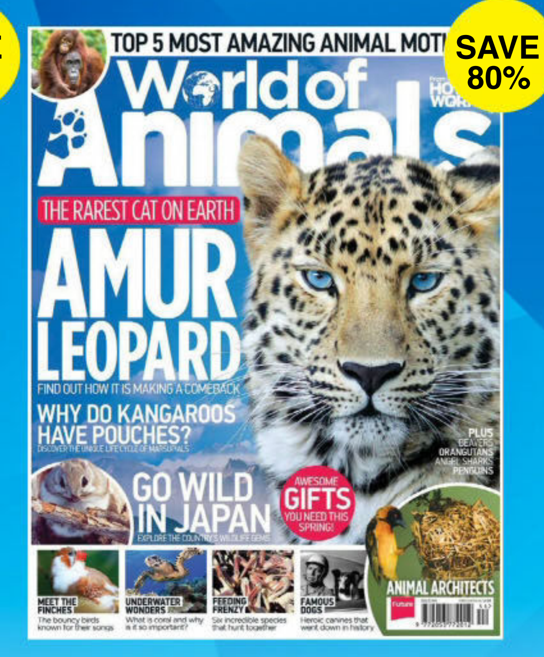
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> Computers weren't at all part of my schooling. For us at the girls' High school, it was needlework and home economics

Mo Warden



MO WARDEN

As a graphic artist, Mo Warden lent her talents to many of Novagen Software's groundbreaking titles. She tells Paul Drury about pixels, polygons and working with Paul Woakes

Mo Warden did not seem destined for a career in videogames. Born in a quaint part of North Staffordshire, she was already a mother of two before she first got her hands on a home computer. Her talent as a graphic artist saw her produce work for such companies as Llamasoft, Anco and Domark but it was her lasting partnership with Paul Woakes at Novagen which proved to be most fruitful. Though she left games behind, she still runs the company she set up in 1986, Grafixation, and remains very much involved with IT and web design. "I was a very lucky person who got to do what they wanted for a living," says Mo of her time in the games industry.

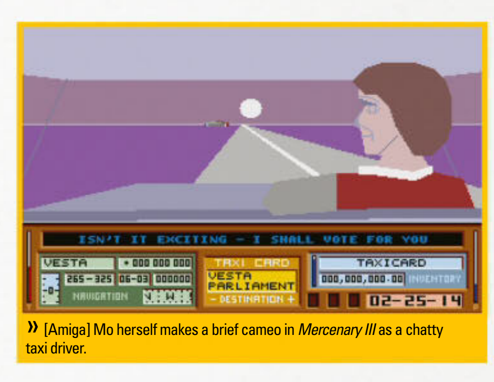
Is Mo short for something?
Yes, it's short for Marion. When I was 17, a friend started calling me it and it just caught on.

Do you think having a forename that isn't gender-specific helped you get on in the male-dominated games industry of the Eighties?
[Laughs] I suppose it might have been useful. I did find that when I went to interviews, they were expecting a man. I'd turn up and say, 'Hello, Guess who?' and they were quite surprised when they saw me! Pleasantly surprised, I think. I mean, it was all about the work.

Were computers and videogames a big part of your childhood?
I do remember my mum buying a little *Pong* TV game, which would come out on Sunday afternoons. My brother would always wipe the floor with me. Computers weren't at all part of my schooling, though. The boys at the grammar school had computers but for us at the girls' High school, it was needlework and home economics.

So how did you get into the games industry?
I got my first computer, a VIC-20, in 1981. I was a single parent and struggling to find work that fitted in with term time for my two kids. A friend took pity on me and gave me the VIC on loan, just to see if I got on with it. In five or six weeks, I'd taught myself BASIC and was starting to get into 6502 [assembly language]. I was writing graphics before I was drawing them. Later, I got a C64 with Doodle, one of the first graphics packages.

Is that how you came to design the loading screen for Jeff Minter's game *Batalyx*?
I knew Jeff through Prestel and MicroNet (early online services) and we'd swap stuff. I think I actually met him in person at a computer show and the screen for *Batalyx* was the first thing I ever had published.



» [Amiga] Mo herself makes a brief cameo in *Mercenary III* as a chatty taxi driver.

That loading screen features a hairy half-man, half-goat creature. Did you get Jeff to pose for it?
[Laughs] oh no. We had both read the same science fiction book with the Batalyx character [in]. I showed him some sketches which he really liked and I just worked them up into that screen.

That led you to do some of the background screens for Jeff's *Colour Space* on the Atari ST but, surely, it wasn't paying enough to buy your kids new shoes?
I was doing it for fun and to put on my CV, my show reel, which I'd take to computer shows and show people in the hope they might give me work. That's where I met Bruce [Jordan] and Tim [Bosher] in 1986.

Ah, two of the main men at Novagen Software!
Bruce had a look at my work, took my number and



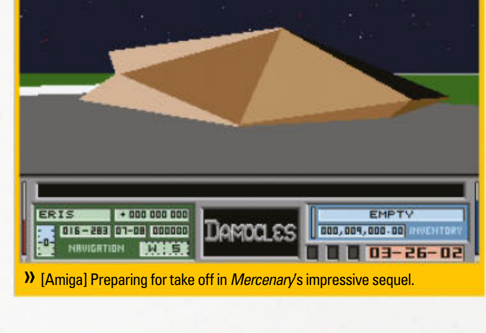
SELECTED TIMELINE

GAMES
- **BATALYX** [C64] 1985
- **COLOURSPACE** [ATARI ST] 1986
- **THAI BOXING** [C64] 1987
- **BACKLASH** [AMIGA/ST] 1987
- **HELLBENT** [AMIGA/ST] 1988
- **HYPERFORCE** [AMIGA/ST] 1989
- **DAMOCLES** [AMIGA/ST] 1990
- **DAMOCLES: MISSION DISK 1** [AMIGA/ST] 1991
- **DAMOCLES: MISSION DISK 2** [AMIGA/ST] 1991
- **ENCOUNTER!** [AMIGA/ST] 1991
- **MERCENARY III: THE DION CRISIS** [AMIGA/ST] 1992
- **LEGENDS OF VALOUR** [AMIGA/ST] 1992
- **DAMOCLES** [PC] UNRELEASED

said he'd be in touch but I never expected him to. Then two days later he rang and said there was someone he'd like me to meet. He picked me up, drove me over to a house in Birmingham and when I walked in, there was Paul Woakes. I almost fell through the floor! He was my hero at the time. I loved his games. He was a big name and I was just blown away. I wasn't expecting it at all.

What were your first impressions of Paul?
I was a bit overawed but once we started talking about the project ahead, which was *Backlash*, I found we got on really well. We were talking seriously about something I was really keen on which was wonderful for me. Someone was taking me seriously! Jeff [Minter] had encouraged me a lot but this was a job! It was what I wanted. Paul was a really nice guy and amazing to work with.

Just before you got the job at *Novagen*, you worked on *Thai Boxing* for the C64…
Oh god, yes. I'd met a group of people at a computer club and we decided to try and get some contract work. We met a guy in Birmingham who put us in touch with Anco, but it all got a bit confused. We were doing the work, he was passing it to Anco and a lot of people didn't get paid. It was good experience because it taught me how not to get ripped off…



» [Amiga] Preparing for take off in *Mercenary*'s impressive sequel.

We can all consider that an important lesson to learn! How did you go about creating the graphics for the fighting moves?
I remember borrowing a library book to study martial arts photos, so I could design the figures, and then I just used my imagination to make them look reasonable. They told me to make it gritty and realistic which is why you have the faces at the top of the screen getting bloodier. It was my protest, I suppose. I used to turn down work that involved you shooting people to bits.

Your first project for Novagen was *Backlash*, which involved shooting, but not at people. Were you given free rein when creating the graphics?
Paul [Woakes] gave me a lot of freedom in the game's design. He told me the constraints, which were quite strict back then, but I knew the hardware and understood that. My work needed to fit with his code – we needed to be singing off the same hymn sheet. I'd draw things first on paper and take them to him before putting them on the screen.

Was working in 3D a big step up?
It was quite a challenge but once I got into it and did the first few objects, it felt quite natural. I could visualise



» [Atari ST] *Hellbent* was a slick parallax scrolling shooter with some strangely hypnotic visuals.



» [Atari ST] The 16-bit update of *Encounter!* increased the speed and challenge considerably.

FIVE TO PLAY Marvellous games from Mo



BATALYX 1985
■ Mo's first published work was the loading screen for this Llamasoft release, featuring an imposing rendering of the legendary 'goatman'. The game is one of Jeff Minter's most interesting 8-bit titles, a mash-up of six minigames. Look out for a Making Of article in the future.



BACKLASH 1987
■ Mo moved up to the 16-bit machines with this super-fast 3D shooter, her first collaboration with master coder Paul Woakes. Dispensing with the thoughtful exploration of *Mercenary*, this is all about flying low and blasting hard. We especially love the sinister-looking eyeballs.



DAMOCLES 1990
■ Over three years in the making, this sequel to *Mercenary* offers players a whole solar system to explore. Using filled polygons allowed Mo to develop her visual style in this epic adventure, full of witty dialogue and intriguing subplots, which scored an impressive 95% in *Zzap!* magazine.



ENCOUNTER! 1991
■ An update of Paul Woakes' excellent C64 take on *Battlezone*, the extra power of the 16-bit systems of the time allowed many graphical refinements, more devious enemies and some eye-popping explosions. And are those wind turbines on the horizon? Very prescient.



MERCENARY III 1992
■ Mo's final Novagen release (a PC version of *Damocles* was begun but never completed) built on the series' firm foundation of planetary travel and vast, colourful environments to explore. The 'power, corruption and lies' narrative make this game still feel incredibly relevant.

> "I still get emails saying, 'Woah, Novagen! I played those games a lot!' It gives you a little lift"
> Mo Warden

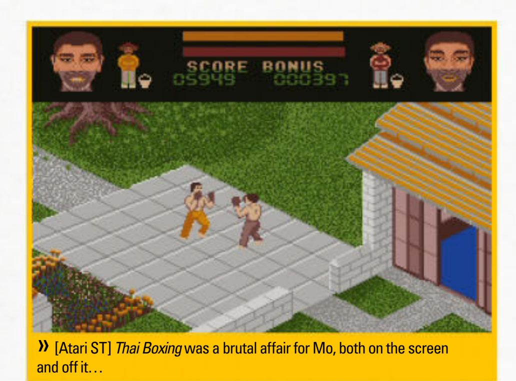
how I wanted things to look as they flew past you. I remember the eyeball [in the game] – we made it so it actually looks at you as it goes past!

You then work on 2D shooter *Hellbent*. Did that feel like a backwards move?
I was already working on *Damocles* by then but that took us a very long time to develop. We had these shorter projects so we could keep the longer game going on in the background. Someone suggested making *Hellbent* a parallax scroller, which meant I could put in multiple levels and you can see them through the gaps in the surface you fly over.

The effect is rather hypnotic, we think.
That was the plan! A lot of people find [the game] quite hard to play. The controls were quite twitchy and it was very easy to crash. I noticed when the reviews came out, all the screenshots were from the first level. Maybe they never got any further [laughs].

You'd then go on to team up with Tony Takoushi for *Hyperforce*.
I think Bruce introduced me to Tony at a show. Tak, as I called him, was always bursting with ideas. Some weren't very practical but they were always interesting. He basically said, 'Do anything! Just show me some stuff!' I had done this horse and he said, 'Can you give it wings?' and so it became a Pegasus. He asked me to make the backgrounds 'evil', so they're all pretty dark and grim. In fact, the Grim Reaper himself is in there!

Many of us knew Tony as a games journalist for magazines such as *Computer & Video Games* and *Big K*. Had he ever given one of your game a bad review?
Not that I know of! And even if he had, I wouldn't have held it against him. Everyone is entitled to their opinion, even if it's wrong…



» [Atari ST] *Thai Boxing* was a brutal affair for Mo, both on the screen and off it…



» [Atari ST] *Damocles* was an epic adventure in a world of press lies and political corruption.

» Mo's design sketches for the President's Palace in *Damocles*.

At this time, you were still working with Paul Woakes on *Damocles*, the sequel to *Mercenary*. As the years went by, did you become frustrated that development was taking so long?
No, it wasn't frustrating because we knew it was never going to be a quick project. It was huge and it evolved slowly. We got to the stage where we knew we needed to release it, but there were still things we wanted to do and we held it back. I say 'we', though it wasn't really my decision, but we did all keep thinking of new things to add into [the game]. In the end, we just had to call a halt and release it.

It sounds like you were discussing game ideas not just graphics?
Oh yes, we had meetings, usually myself, Bruce, Paul and a few others as well, particularly Paul's friend Martin Stallard, and we would all throw ideas into the pot. We were always thinking of new things to bring to those meetings, even while we were doing other things. It was an enormous collaboration.

The game was indeed huge though somehow you managed to squeeze it into a single load.
Oh, that was all Paul. He was a magician. I'd bring graphics to our meetings and we'd go to his work room and he'd just plug them in, straight away. There was no poring over paper. He'd code them in on the keyboard and usually they would work first time. He was brilliant.

We always liked the hover car in *Damocles*. Was that a *Blade Runner* influence?
I am a big sci-fi fan and I read a wide range of stuff but I don't watch a lot of TV and films, to be honest, so no, it was not from anything specific.

***Damocles* was finally released in 1990 and is full of self-depreciating quips as to how long players have had to wait for it to finally come out.**
Yes! [laughs] A lot of the jokes came from Bruce [Jordan] who had a wicked sense of humour. Lovely chap and very missed.

Novagen did try to compensate for the long wait by releasing two extra mission disks the following year. Was that always the plan?
We had got to the stage where we had to release it but then we knew we could come back to it through the mission disks. I don't think that was the plan at the start but that's how it turned out! We saw the opportunity to do it if the game was successful… and, of course, it was mega! The mission disks did really well.

What was the atmosphere like at Novagen during those glory days?
I did go into the office but the majority of my work was done at home because I was a single parent and I did most of it at night. I'd look after the kids during the day and once they were fed and in bed, I'd start working, usually into the small hours of the morning. Then I would get up and take them to school the next day!

Did you get any sleep back then?
I was enjoying myself so much I didn't want to go to bed anyway. I loved it.

Were you the only woman at Novagen working on game development?
I think I was but it was never mentioned. As long as I did the work, that was it. Which is what I wanted.

After *Damocles* and its mission disks, you went on to work on the 16-bit update of *Encounter!*, a Paul Woakes game that was first released on the C64 back in 1984. Was



YOU ASK THE QUESTIONS

Mo provides some artful replies to your queries

ERIC: You have worked on both 2D sprite and 3D polygon games. Do you have a favourite of the two?

That's an interesting question! I did enjoy the 3D, though not sure why. I think that would be my preference.

NORTHWAY: How did the tools you used to create graphics develop over time?

I just used what I was given. Sometimes I came across something useful but most of the time we wrote the tools in house. *Damocles* for example was created on an editor that Paul [Woakes] had written.

MAYHEM: Did you playtest any of the games as a way to check the graphics looked and worked okay in the context of the game?

Yes, I had the ability to view objects [I'd created] but I wouldn't exactly call it playtesting. When [a game] was brought together, we'd have playtesters, which I think we got from the local grammar school. They would play and we'd make copious notes then bring them back a week later and do it all again!

POSTIEDOC: What was your favourite system to work on?

I'm torn. I did love the Atari ST but then there's the Amiga as well. It's 50/50. I had both for a while – I owned the ST but borrowed the Amiga. I didn't want to give it back, though!

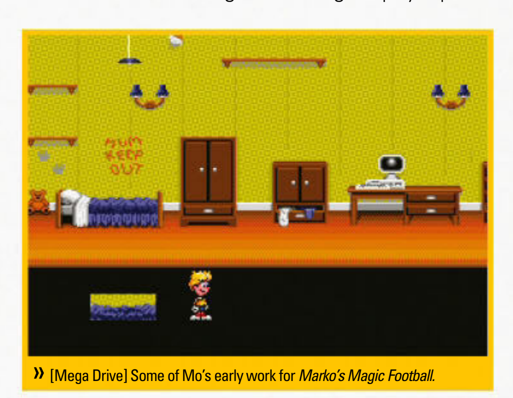
> They were cancelling lots of projects and laying people off
> Mo Warden

working on this just a case of updating the graphics for this project?
It was a bit more than that! It was for a different platform with a lot more speed and a lot more capability. It wasn't just a case of rejigging the graphics. There was a lot more gameplay and there were all the extra little touches like designing a horizon, with [buildings on]. It all adds to the game.

Did you get much of a choice in the projects you worked on?
No, not really but I didn't mind because I was never asked to work on anything naff. All the games I got to work on at Novagen were good!

Your final Novagen project was *Mercenary III*…
No it wasn't! We developed *Damocles* on the PC.

Sorry, you're right! Though that never got released, did it?
No, it didn't, though we actually got quite a long way into it. We didn't have a great deal of gameplay in place but we had most of the solar system, the cities were there, the buildings were appearing, objects in the buildings, the paths we were going to take through it… one or two of the planets weren't fully designed but then Psygnosis just pulled the plug. At the time, I didn't understand why but I found out afterwards they were cancelling lots of projects and laying people off. They were going through a sticky patch but why they cancelled our project I don't know because it was quite well advanced. I wouldn't call it playable but I have screenshots from it so you can see how far we got!



» [Mega Drive] Some of Mo's early work for *Marko's Magic Football.*

***Mercenary III: The Dion Crisis* did get a release and it was one of your only games to actually feature people!**
Yes, I got to draw the taxi drivers [in that game]… and the brown-haired driver is based on me! I wanted to put myself in it just for fun… and I did like creating aliens as taxi drivers.

Which of your *Novagen* games are you most proud of?
Well, I'm proud of them all. I have a soft spot for *Damocles* and for *Mercenary III*, which was one step on from it, but I always did like *Backlash*. There's something very visceral about it. At one of the computer shows, Bruce had some arcade cabinets built and *Backlash* was burned into chips so we had it playing on two cabs at each side of our stand. People were queueing up to play it and it was so satisfying watching people play it because they would actually duck when things were coming at their head! It was such a nice feeling.

When *Novagen* closed in the early Nineties, it must have felt like the end of an era for you.
It mutated rather than ended. We moved into



» Mo in 1988, shortly after joining Novagen.

advertising through a little project called Checkwin. Basically, it was playing little games in supermarkets which would then hand out coupons as prizes. There was some takeup of it but it didn't do particularly well. We did start a storyboard for a game called *Continuum* and tried to get someone interested in it but that didn't come to anything. Tim, Bruce and Paul stayed together and formed a new company called Lighting Reality but they didn't need a graphic designer so there just wasn't a place for me there. We stayed friends, though. I still send Paul a Christmas card.

Does Paul ever send a card back?
No, he doesn't. I send it to the same address in Birmingham every year and I imagine he's still there.

We've always wanted to interview Paul for Retro Gamer. How do you rate our chances of making that happen?
Paul doesn't do interviews. He never did, and I don't think he ever will. It just was not something he was comfortable with doing. I won't say that he didn't see the point of them, but he just wasn't inclined to do them. So he didn't. He was quite a private man and he liked his anonymity. There are a few photos of him around, I know, but I don't think he would like to know that. Paul is generally a quiet chap but when you started him talking about something he loved, like programming or video, for example, he was as garrulous as anyone.

After working at Novagen, you worked on *Legends Of Valour*, released through US Gold in 1992. What was your role on that title and who did you work with?
I mostly did character animations for that game. The main artist was a very talented guy called Kevin Bulmer. I think I met him at a computer show and our chat ended up being like a job interview. I enjoyed doing some of the monsters you encountered on your adventures, just using my imagination to create stuff that was fun and a bit scary if I could. I remember doing a mummy with a Lon Chaney walk [giggles]. We were in an office in Wolverhampton and it was good to work in a team, sharing the work.



» [Amiga] *Legends Of Valour* treated you particularly harshly.

» [Atari ST] The Grim Reaper tells it like it is in *Hyperforce*.

***Legends Of Valour* was your last released game though we understand you did start work on *Marko's Magic Football* for the Game Gear.**
That was not a happy story. I was hired by Domark on the strength of my previous work but they were in Putney and wanted me to stay in London and only go home at weekends, which didn't really work out well because I had a family. Then they said they would put me up in a hotel but I had to pay half! That wasn't on. We were developing two versions of *Marko* – one for the Mega Drive and one for the Game Gear – and the programmer I was working with for the handheld version decided he wanted to use the same full-size graphics as the console version which wasn't very practical. He was convinced he could do it, so it was, 'Bye bye, Mo'…

With several games you were involved with being canned in the mid-Nineties, did you sense it was time to look elsewhere for work?
Nobody enjoys projects being cancelled but I had developed other interests. I taught myself HTML so I became a web designer who could code a bit, which was useful, and I started to make some money out of it. These days, my partner Peter and I run our own IT business and I'm the office manager. I still get to design graphics… I don't just answer the phone!

Do you miss working in games development?
Yes I do! I still play games a fair bit. I'm currently playing *Astroneer*, which I really like. As for working in the games industry again, it would depend who was asking and whether I had confidence in them. And I'd want to know why they wanted me [laughs].

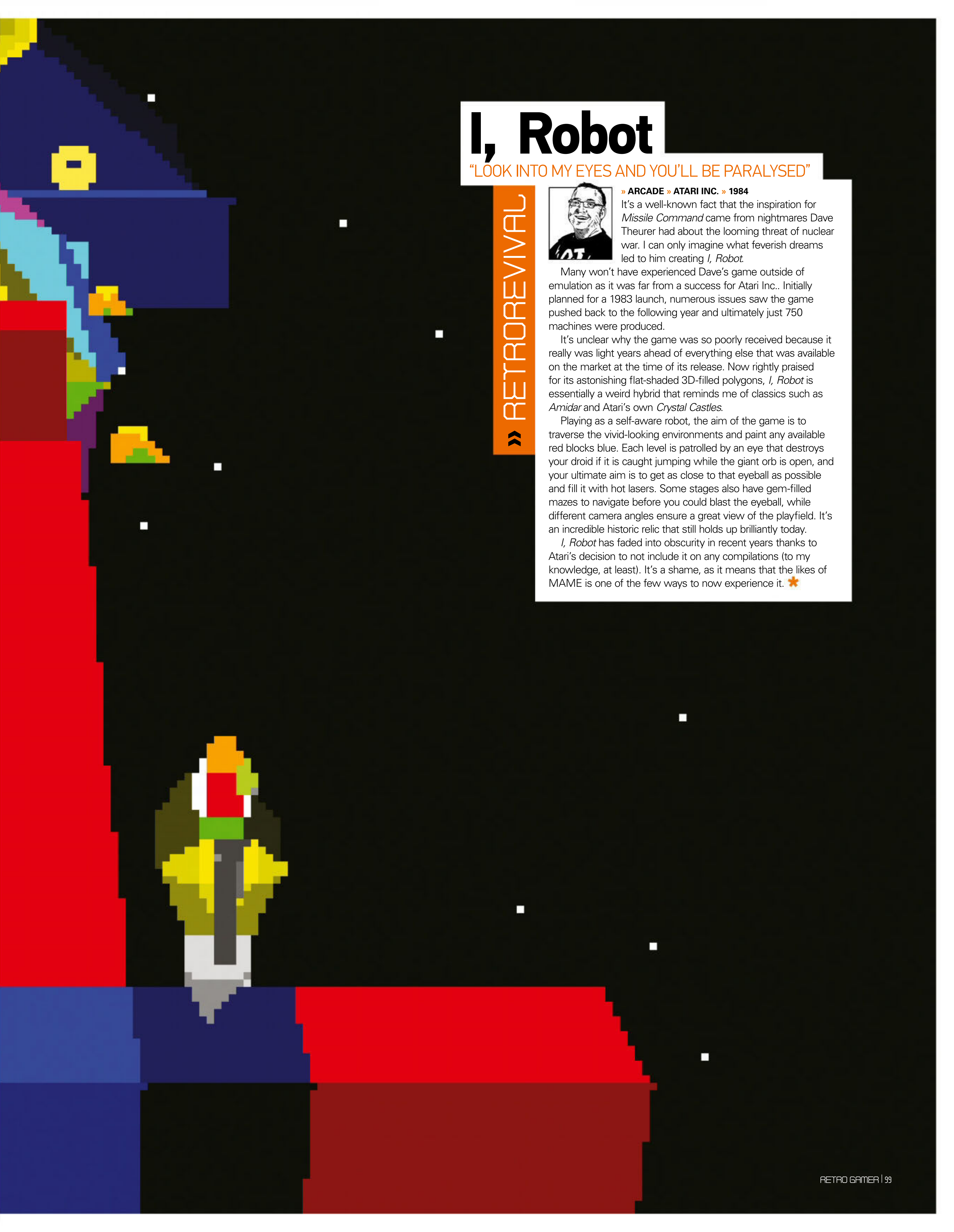
You appeared in the documentary *From Bedrooms To Billions*, which traced the rise of the British games industry. Did it feel like your contribution to those pioneering days was finally being acknowledged?
That's probably a bit strong but yes, it was nice to be recognised. I still get the occasional email from someone saying, "Woah, Novagen! I played those games a lot!" It's nice and gives you a little lift.

You were one of the few women who appeared in the film. Does that make you feel proud or disappointed?
I don't think that made a difference. It wasn't about being male or female, it was about being capable. It was the work you produced at the end of the day. If I met anyone who was discriminating against me because I was female, I would walk out the door.

Did that ever happen?
Not that often but one or two times, yes. I won't name names but I walked into an interview one time and the guy looked at my CV, then looked up at me and said, 'Blimey, you're a woman! And you're cute as well.' I literally turned round and walked out. I hope things have changed since those days! ★

Many thanks to Mo for her time and for providing a wealth of images for this piece. You can find her at facebook.com/mo.warden and twitter.com/silverrainbow





» RETROREVIVAL

I, Robot

"LOOK INTO MY EYES AND YOU'LL BE PARALYSED"

» ARCADE » ATARI INC. » 1984

It's a well-known fact that the inspiration for *Missile Command* came from nightmares Dave Theurer had about the looming threat of nuclear war. I can only imagine what feverish dreams led to him creating *I, Robot*.

Many won't have experienced Dave's game outside of emulation as it was far from a success for Atari Inc.. Initially planned for a 1983 launch, numerous issues saw the game pushed back to the following year and ultimately just 750 machines were produced.

It's unclear why the game was so poorly received because it really was light years ahead of everything else that was available on the market at the time of its release. Now rightly praised for its astonishing flat-shaded 3D-filled polygons, *I, Robot* is essentially a weird hybrid that reminds me of classics such as *Amidar* and Atari's own *Crystal Castles*.

Playing as a self-aware robot, the aim of the game is to traverse the vivid-looking environments and paint any available red blocks blue. Each level is patrolled by an eye that destroys your droid if it is caught jumping while the giant orb is open, and your ultimate aim is to get as close to that eyeball as possible and fill it with hot lasers. Some stages also have gem-filled mazes to navigate before you could blast the eyeball, while different camera angles ensure a great view of the playfield. It's an incredible historic relic that still holds up brilliantly today.

I, Robot has faded into obscurity in recent years thanks to Atari's decision to not include it on any compilations (to my knowledge, at least). It's a shame, as it means that the likes of MAME is one of the few ways to now experience it. *



>> This month we finally get our hands on the new Zelda and find out if it's as good as everyone says. We also see how the PS4 version of Atari Flashback stacks up and revisit The Warlock Of Firetop Mountain



» [Switch] Certain enemies can kill you with one hit, so always be on your guard.

The Legend Of Zelda: Breath Of The Wild

EAST MEETS WEST IN SPECTACULAR FASHION

INFORMATION

» **FEATURED SYSTEM:** SWITCH
» **ALSO AVAILABLE ON:** WII U
» **RELEASED:** OUT NOW
» **PRICE:** £59.99
» **PUBLISHER:** NINTENDO
» **DEVELOPER:** IN-HOUSE
» **PLAYERS:** 1



Nintendo's latest game serves as a fitting link between two systems. It not only kicks off the launch of the Switch in stunning fashion, but also serves as a fitting swan song for the greatly-underappreciated Wii U. It's a game that's quite unlike any other *Zelda* game that's come before it, but it's also one that will feel fittingly familiar to anyone who has ever visited the world of Hyrule, if only for the briefest of times. It's a game that borrows heavily from other titles, but also manages to make bold progressive moves of its own. In short, it's one of the finest videogames we've played in some time.

Initially, it feels like business as usual, with your adventure starting off in a small playing area that requires you to tackle four shrines in order to gain mastery over four unique powers that will aid you for the rest of your journey. Bombs can be used to detonate items and obliterate enemies, Stasis allows you to freeze certain objects for a small amount of time, Magnesis lets you manipulate metal items, while Cryonis enables you to summon pillars of ice wherever you can find water. As a result this means that the world of Hyrule is immediately open to you, as nothing is hidden behind a required item, as was the case of earlier games in the series. It seems restrictive at first, seemingly destroying the very sense of discovery that earlier *Zelda* games always did so well, but it actually enhances Nintendo's game massively, allowing you to fully explore and appreciate the detailed world that stretches out before you.

Everything about *Breath Of The Wild* feels natural and purposeful. Lightning strikes will kill anything in the immediate area if it makes contact with water, carelessly wielding a flaming torch can

» [Switch] The game world is gigantic in size and scope. Climbing towers will let you get a better sense of Hyrule's topography.

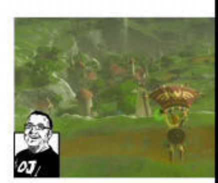




BRIEF HISTORY

» *The Legend Of Zelda* was first released in 1986 for the Famicom Disk System and was inspired by Shigeru Miyamoto's love of exploring. It continued to evolve across later Nintendo systems, with many citing *Ocarina Of Time* as the franchise's high point. *Breath Of The Wild* takes the standard *Zelda* template and evolves it massively, drawing inspiration from many popular western open world games.

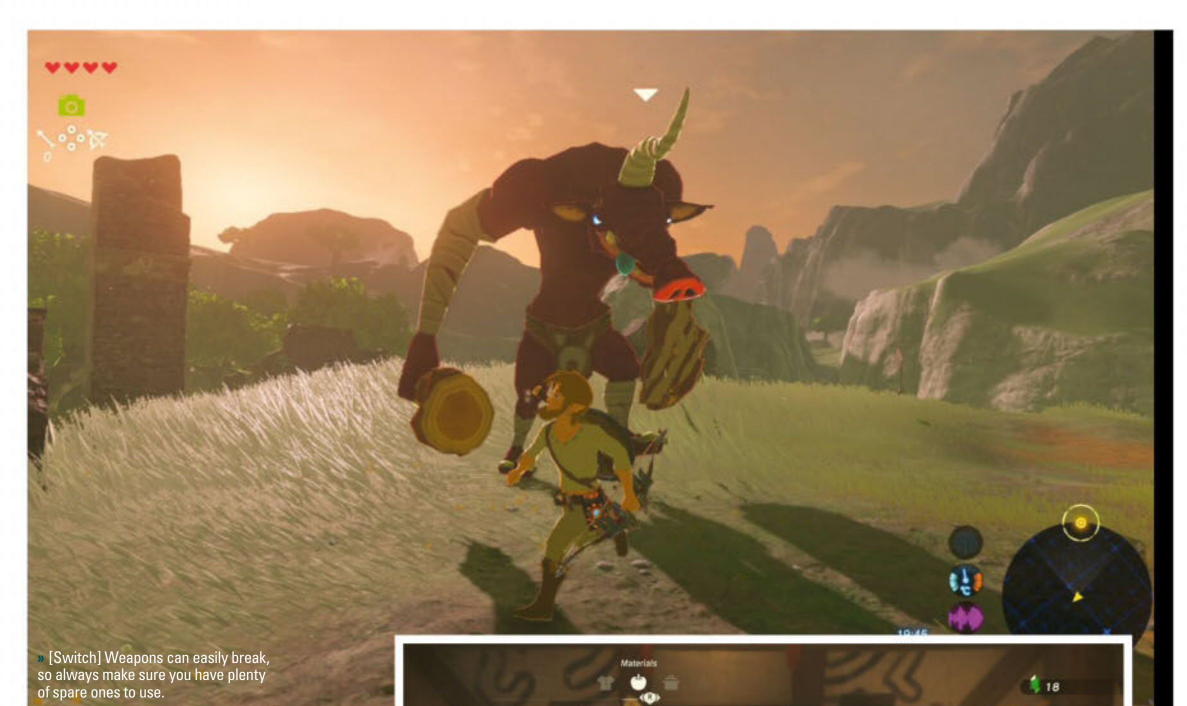
PICKS OF THE MONTH



DARRAN
The Legend Of Zelda: Breath Of The Wild
50 hours in and I'm still in awe of how great *Breath Of The Wild* is. It's a truly magnificent adventure.



NICK
The Legend Of Zelda: Breath Of The Wild
I've often felt that 3D *Zelda* games have been too conservatively designed, but this radical rethink dispels those notions completely.



» [Switch] Weapons can easily break, so always make sure you have plenty of spare ones to use.

cause it to set nearby areas alight (and yourself if you're not careful) while certain animals will ruthlessly hunt you down and kill you if you stray too close to them. There's danger in every corner of Hyrule, but there's also adventure, too, and the world just itches to be explored. Climbing, one of several new mechanics in *Breath Of The Wild,* seems boring, but it's anything but, as it allows you access to virtually every nook and cranny (providing of course that you have the required stamina available).

It's important to note that there's nothing really new here, and its western influence is obvious, with *Skyrim* and the *Assassin Creed* games being the most significant inspirations, but in true Nintendo form, Nintendo takes what others have created and builds on it, adding its own special touches in the process. Take the huge towers that litter the world for example. The new stamina meter ensures that they now become challenges in their own right, requiring cunning and ingenuity to beat them – particularly some of the later monoliths you encounter. Even when you do reach the summits they simply show you the surrounding areas, leaving you to do the hard work of finding out what secrets can be found within the new region

Assassin's Creed-styled shrines are also found dotted about Hyrule's vast world. The worst are simple combat challenges that test Link's sword skills, but the best are intricately designed little physics puzzles that require you to use some or all of your four main abilities in order to solve them. Completing four shrines allows you to unlock a new heart canister or increase your stamina wheel, meaning you're constantly encouraged to explore the gloriously designed world to uncover new challenges and improve Link's traits. You'll get side-tracked too, or unwittingly fall prey to an overly powerful group of monsters, but there are always ways to tackle these areas and Nintendo always seems one step ahead of you, whether it's finding a convenient boulder to roll down into a nearby camp, or waiting for the cover of nightfall to sneak in and steal weapons, making the inevitable showdown that much easier.

» [Switch] Items can be combined to create new food dishes and elixirs. You won't get far without them.

And then, of course, there are the dungeons – for many, the crowning achievement of any *Zelda* game. While this has the fewest of any *Zelda* game we've encountered so far, they're also among some of the best, being naturally designed and logically created conundrums that feel extremely refreshing in their approach and design. To say too much about them would be to spoil them, so let's just say they're presented in a way that's never been seen in a *Zelda* game before. We'd be lying if we didn't say we could have done with more of them, but there's so much to do in Hyrule's vast overworld that their sparseness is never an issue.

Breath Of The Wild certainly isn't perfect (it's story is dire, it's littered with annoying stealth sections, there are occasional frame-rate drops and the music is surprisingly weak for a *Zelda* game) but that doesn't stop it from being one of the finest games of its generation. It pushes the 30-year-old franchise in bold new directions, and feels like a brand new chapter for the classic series. It could well be the finest *Zelda* game of all time. ✱

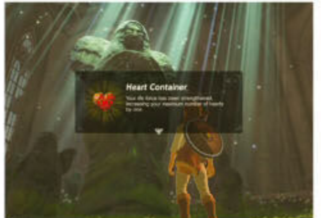
In a nutshell

A tremendous evolution of the *Zelda* franchise which takes the sprawling overworlds of western games, but marries them to the tight, responsive controls that have always made the series such a joy to play.



Score **95%**

✱ THE WIIU VERSION



Breath Of The Wild is arguably the biggest game to ever appear on the Wii U and it shows, in several areas... The biggest issue is that the frame-rate appears to fluctuate far more than on the Switch version of the game. It's certainly not a deal-breaker and never interferes with the precise control that you have over Link, but it's annoying nonetheless. It looks rather ugly in places too, due to the harsh aliasing that it uses. While it plays surprisingly well on the Wii U's oversized gamescreen, it works best with the Pro Controller (the same can be said for the Switch version too). It's also going to be worth a fortune in years to come if the current price of *Twlight Princess* on GameCube is anything to go by. We'd go for the Switch version if that's an option for you, but it's a great game regardless of platform.

✱ WHY NOT TRY

▼ SOMETHING OLD
THE LEGEND OF ZELDA: THE WIND WAKER (GAMECUBE)



▼ SOMETHING NEW
HORIZON ZERO DAWN (PS4)



CRYPTIC CORRIDORS

The reconfigurable game board includes open halls, narrow corridors, dead ends and more. Different rooms include features such as rough terrain, partial and full cover, while items are represented with tokens and placed by mission.

HANDSOME HELLSPAWN

The level of detail on these figures is certainly nice, and the enormous Cyberdemon is a sight to behold. However, the larger figures are less mobile – even rotating costs them movement (one point for 90 degrees).

Doom

RIP AND TEAR YOUR FRIENDS TO PIECES

INFORMATION

- » **FORMAT:** BOARD GAME
- » **RELEASED:** OUT NOW
- » **PRICE:** £59.99
- » **PUBLISHER:** FANTASY FLIGHT GAMES
- » **PLAYERS:** 2-5



When it comes to the balance between action and strategy, *Doom* leans heavily towards the former in its videogame form, rewarding a fast trigger finger and twitch reactions. Fantasy Flight Games has already made one game based on the classic series in 2004, so we were keen to see if this new offering also manages to retain the series' characteristic appeal in the same way.

Doom comes with a number of parts including a jigsaw-style reconfigurable board, a variety of decks of cards, models of the various marines and monsters and tokens to represent in-game items and abilities. Unfortunately, while the cards are attractively presented they aren't given rear labels, meaning deck identification is a bit of a pain. Likewise, the quality of the models is good and some of the larger enemies are very impressive (the Baron Of Hell certainly looks as imposing as it is), but the marines are hard to tell apart so you may wish to paint yours to distinguish them.

The game supports up to five players, with one taking the role of the monsters and the rest playing as the marines. Marines must complete objectives specified in the mission briefing, and the monsters must gain a number of 'frags'. Much is determined by the cards – for a start, initiative is determined by the order in which each unit is drawn, with marines acting individually and monsters acting by species. Damage is dealt by rolling dice (the number and value of which depending on the attack card), and a card is drawn for defence in order to reduce or even negate damage.

As well as having different objectives, the two sides play quite differently. Each marine has a deck of cards comprising standard actions and specific weapon-related actions, which dictate the

BRIEF HISTORY

» *Doom* can trace its lineage back to the 2004's *Doom: The Board Game*, also from Fantasy Flight Games. The rules and mechanics were later repurposed to create *Descent: Journeys In The Dark*, and years of modification and refinement have allowed for an updated version of the game, with the licence restored.

CARDS AGAINST HUMANITY

The number of different decks of cards is bewildering at first, but complexity shouldn't prove a huge barrier – occasional rules references aside, one game should be sufficient to get to grips with the rules and mechanics of *Doom*.

LOCKED AND LOADED DICE

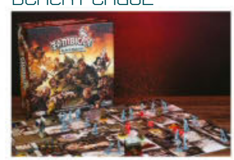
Red dice can inflict up to two damage each, and are capable of missing, while black dice always hit for up to three damage. Marines have ten hit points each; standard-sized monsters generally have fewer and larger ones have more.

WHY NOT TRY

▼ STAR WARS: IMPERIAL ASSAULT



▼ ZOMBICIDE: BLACK PLAGUE



movements and attacks that can be performed during a turn. Marines can also perform 'Glory Kills' to restore their health and gain valuable bonuses, such as extra action cards. Likewise, monsters have their basic abilities on cards and can perform supplemental actions with their own deck. They also have 'Argent Powers' which can disrupt the enemy considerably, for example by removing key defensive cards.

There's a bit of a learning curve to *Doom*, but once you're past that the game proceeds swiftly and captures the essence of the videogame very well – we definitely experienced some, 'Oh, crap' moments after opening doors to find the legions of Hell behind them, and discovering the chainsaw was beautifully empowering. What's more, both sides are able to gain momentum over the course of a mission, leading to a satisfying sense of back-and-forth play. If the marines gain consecutive actions after a spawn, they can wipe out multiple

"MARINES CAN PERFORM GLORY KILLS"

enemies before they can attack. Likewise, we have seen luck favour the monsters to the point that many consecutive attacks were rendered harmless, wasting whole turns and leaving the marines exposed. It's not obvious who will emerge victorious until the late stages of a game, and that's a good thing when a game lasts around two-to-three hours. ✱



In a nutshell

Fantasy Flight Games has done a great job of retaining the tension of *Doom* despite losing the real-time action, and this is a great way to pass a few hours with friends. It'd just be nice if the cards were easier to identify at a glance.

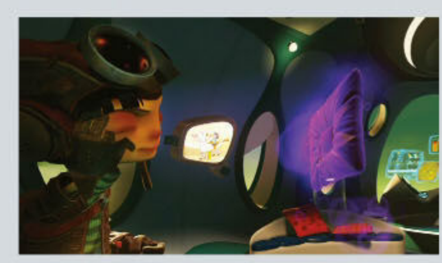


The Warlock Of Firetop Mountain

» System: PC (tested), iOS **» Buy it for:** £14.99
» Buy it from: AppStore, steampowered.com

First launched on Kickstarter in 2015, Tin Man Games' iteration of the classic *Fighting Fantasy* book is finally available for all to enjoy. While it's a faithful adaptation of the hit book, it utilises a dynamic tabletop-style viewpoint that reminds us of the classic board game *HeroQuest*. Like the book, you're giving choices whenever you get to a door or reach an intersection, with the game only revealing what's in the new location if you decide to move forward. It's a neat mechanic that works surprisingly well. Combat has also been enhanced, with enemies and your hero making their moves at the same time. It's still very simple in places and there's very little replay value but it's great fun while it lasts.

>> Score **62%**



Psychonauts In The Rhombus Of Ruin

» System: PS4 **» Buy it for:** £19.99
» Buy it from: PSN

There's a lot to like about *Rhombus Of Ruin*. It features a sharp script from Tim Schafer, some of its puzzles are clever, while the weird world that Double Fine has created looks sensational in VR. Taking place directly after the events of the original *Psychonauts*, *Rhombus Of Ruin* utilises a more traditional point-and-view approach, which is well suited to VR. Movement is managed by nipping from the mind of one character to another, while utilising Raz's skills to manipulate objects is equally as easy, allowing you to drink in the game's many oddball characters. What a pity then, that for all its pithy one-liners and smart puzzles, there's very little reason to return to it upon completion (which should take less than three hours).

>> Score **60%**



Atari Flashback Classics Vol.1

» System: PS4 (tested), Xbox One **» Buy it for:** £24.99
» Buy it from: PSN, Xbox Live

If you still enjoy the simple pleasures of early videogames you'll find a lot to love in this compilation, which features nine arcade games and 41 Atari 2600 games. The selection on offer in this volume includes *Tempest*, *Centipede*, *Warlords*, *Combat* and *Yars' Revenge*. The option to use arcade bezels is included, as are appropriate display options including scanlines and adjustable vector glow. There's a slight bit of twitchiness to the controls for paddle games, but otherwise this is technically good. The only disappointment is the price of the physical release –*Atari Flashback Classics Vol.1* includes half of the games from the recent PC compilation *Atari Vault* (the other 50 are in *Vol.2*), but actually costs far more.

>> Score **68%**

Gamers HOMEBREW Brewing since 2005

Gaming NEWS

» [Atari 2600] "It says Morris on the door, the GPO owned it before."

» [C64] Earning dough by making some pretzel dough.

JUST THE BASICS

Kicking off this month's news are several new, very small releases from Barry Hart. Amongst this influx of 1K and 4K games are *Trader, Donut Shop* and *Pretzel Shop* which are variations on the *Lemonade Stand* style of game where stock is created and prices are set in order to make a profit. If being in business doesn't sound fun, *Funky Fraktions* is a game where the computer thinks of a fraction and the player is told if their guesses are too high or low. Kikstart.eu/cout-c64 has links for these and dozens more titles from Cout Games.

The C64 also has the rather neat *Basic Battleships* from István 'Steveboy' Maros. Despite the title it isn't a direct clone of the classic two-player game – instead, the computer hides the vessels for both sides and the cells of the playfield are arranged in a single, horizontal line with the player's battleships marked to avoid any 'friendly fire' incidents. The difficulty and number of ships in play can be adjusted and, although it exclusively uses ROM characters, the graphics are presentable. Simply head on to Kikstart.eu/basic-battleships-c64.

Over on the Plus/4 is *Roepipi's Castle Matcher* where the player can control two characters. In this game Vivor the dodo has been locked up in a castle he can only escape with help from his rooster friend, Toby, who is outside and can deliver helpful items by firing them through the windows with the aid of a catapult. There's a five-level playable preview behind Kikstart.eu/castle-matcher-264 and a request for feedback from players giving it a test drive.

If that seems too complicated, take to the streets in *Crash Course* for the Atari 2600, a top-down driving game developed in Batari BASIC where the only objective is to drive as far as possible while avoiding all of the other motorists... although that does become harder as the car slowly makes its way up the screen. Drive over to Kikstart.eu/crash-course-2600 for the announcement thread at Atari Age and a download of this simple but challenging game.

Finally, we have the BASIC 10 Liners competition where developers are challenged with cramming a playable game into just ten lines of BASIC. At the time of writing there have already been over half a dozen entries submitted for the C64, C16, Amstrad CPC, MSX2 and Atari 8-bit at the competition's official website behind Kikstart.eu/10-liners-2017 and contributions from the previous two years are also available.

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at: **darran.jones@futurenet.com**



» [C64] "But nothing hides the colour of the lights that shine."

EXPANDING AN EMPIRE

The God game has always been considered difficult to do with an 8-bit computer; there are versions of *Sim City*, of course, but something complex like *Sid Meier's Civilization 2* is asking too much of something like a C64… right? Well, programmer Fabian Hertel and veteran publisher Protovision didn't agree with that statement and have recently released a preview of their own world-building game.

Would-be deities can find the CSDb entry for this surprising and promising preview behind Kikstart.eu/civ-demo-c64 and, hopefully, the final version won't be too far away.

> "The God game has always been considered difficult to do with an 8-bit computer"



» [Windows] "I would like to move in just a little bit closer."

PRETTY COLOURS

We've covered Sokurah's work previously and, since he's been a little quiet lately, were pleased to see the arrival of his latest effort. *Neon Invasion Earth* is a *Space Invaders*-style shooter with a twist; the Earth sits in the middle of the playfield with the player's gun base rotating around it.

Enemy bullets cause the planet to expand while destroying invaders will make it shrink and the game is over if the player loses all of their lives or gets overrun. Kikstart.eu/ni-earth-win goes to Sokurah's website for a Windows-flavoured download.

HOMEBREW HEROES

MZ-80A developer Joachim Froholt is the man behind Minesnake. The Sharp computer hasn't had much homebrew love in the past so we were interested to find out more about his work

THE BIG INTERVIEW Joachim Froholt

How long did *Minesnake* take to create and who was involved in making it?

I programmed the game and made most of the levels myself, while Ben Coffer of Sharpworks did some levels and the sound effects. His partner, Michelle Soper also helped with levels, and did the lovely intro music for the game. Petko Mishev did the cover art.

It took a few months. It's hard to say exactly how long, as I worked on it during the summer, and then in November/December again. The old saying that, 'The last ten per cent takes as long as the first 90 per cent,' was definitely true in this case.

Is the Sharp MZ-80A difficult to write code for?

No, I don't think so. Having said that, I wrote *Minesnake* using the local variant of BASIC, and then compiled it with an excellent compiler, and BASIC is BASIC, I suppose. I'm trying to figure out some assembler now, and that's obviously a lot harder.

The main problem with the Sharp is that there are really no modern development tools like there are on the Commodore 64, and it took me quite a while before I actually found a decent emulator. So most of the programming was done on real hardware with all the usual limitations of an old BASIC-interpreter running on a computer from 1982. No search function, limited screen estate, all that stuff.

But that was part of the fun, and although I'm glad I found a good emulator later on, I don't think I would have even started the game if it wasn't for the joy of sitting down with the actual machine and doing things the old way.



» [MZ-80A] "He lives in a house, a very fine house in the country."

What kind of feedback have you received from Sharp owners?

Only positive feedback so far, but, admittedly, I have not had much of it. There doesn't seem to be a big English-speaking Sharp community online, so it's not like on the Commodore 64 where there are a number of dedicated sites with lots of traffic that could potentially post about the game.

Seeing a photo on Twitter of someone in Japan holding the game was definitely a great moment, though!

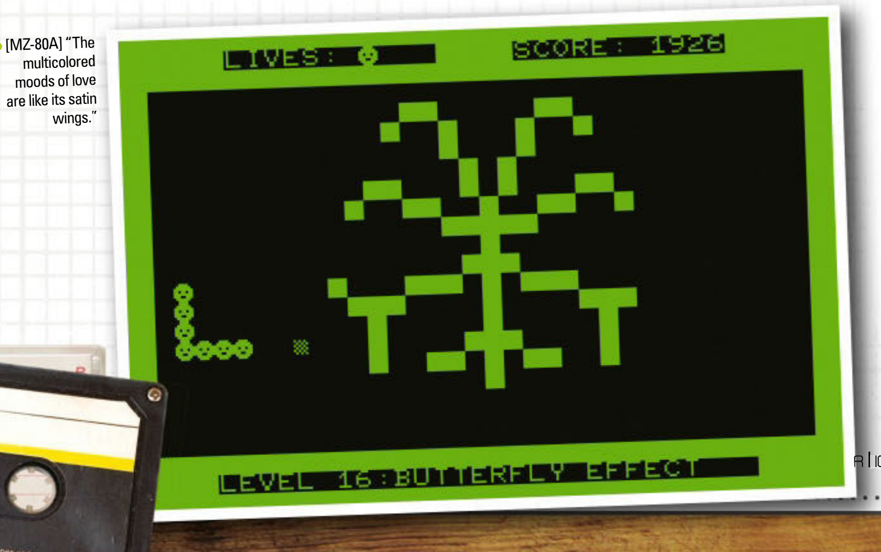
In hindsight, is there anything you would have done differently?

I was inexperienced when I started making it, and I learned much in the months between my two periods of working on it. So when I went back to it, I definitely had a lot of 'why on earth did I do that' moments.

And, finally, can you tell us anything about your next project at all?

I've been working on a dungeon crawler for a while. It's inspired by the early games in the genre, so it's deliberately kept very simple, but there are some neat ideas, I think. A much bigger project than *Minesnake*, but I'm getting there! It will definitely be done this year. Ben Coffer also provided some very valuable help for it.

» [MZ-80A] "The multicolored moods of love are like its satin wings."



Gaming

REVIEWS



One of the first things that players notice about *Firegear* on the Game Boy Color is that it's a bit tough in the same way that bears are a bit likely to defecate in woodland areas. Developed by Fatality and Cosmigo – the latter went on to produce the excellent pixel art tool Promotion – and released in 1999, it's a horizontally-scrolling shooter where survival, rather than score, is the most important factor.

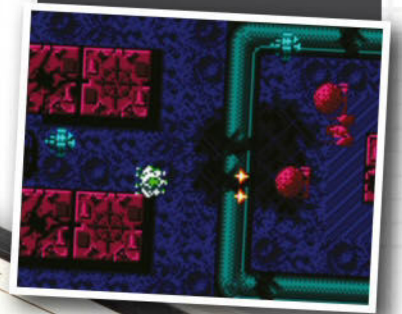
The player's ship controls well, starts with a powerful gun and can be beefed up by collecting the power-up items which pay for extras, but the enemies are fast moving and well shielded, so the challenge lies in learning their attack patterns and figuring out when it's safer to be shooting at or avoiding enemies. Kikstart.eu/firegear-gbc takes you there.

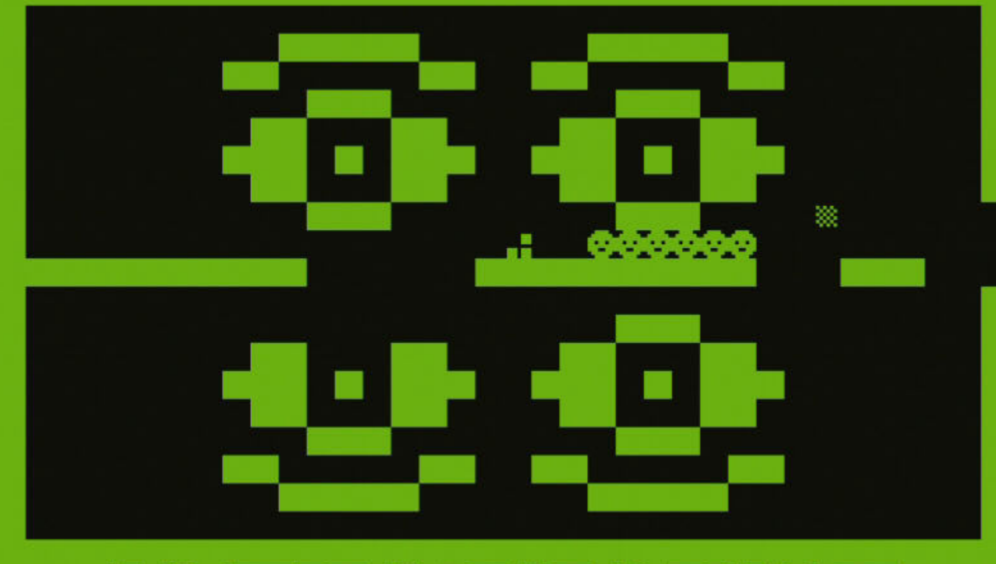


» [Game Boy Color] "Would you think the boy is strange? Ain't he strange?"



» [Game Boy Color] "Reaching out with both hands, I gotta feel the kick inside."





» [MZ-80A] It's difficult to play well when there's someone watching your every move.

MINESNAKE

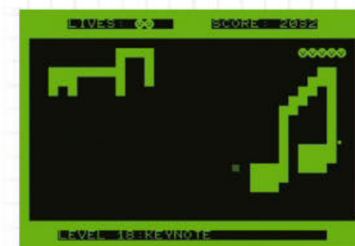
» **FORMAT:** SHARP MZ-80A » **DEVELOPER:** SHARPWORKS » **DOWNLOAD:** KIKSTART.EU/MINESNAKE-MZ80 » **PRICE:** FREE DOWNLOAD, £5 ON CASSETTE

Everybody knows the game *Snake,* where the titular creature is guided around the screen in search of things to eat while growing in length until avoiding its own body becomes as much of a challenge as manoeuvring around the landscape's hazards. There are scores of implementations of this enjoyable game available for pretty much every computer, console or indeed mobile phone, but *Minesnake* is notable because, along with being a piece of homebrew love for Sharp's MZ-80A home computer from 1982, it expands on the original's design.

As is always the case, the player takes control of a snake which can be guided around via the keyboard, but this isn't an ordinary reptile; along with gobbling up goodies, it can also leave explosive devices in its wake – neatly explaining the 'mine' in the title - which if used effectively can blast holes in the landscape to make the tasty morsels more accessible. There's an infinite supply of mines so the player can choose to use them as required or spend some time at the beginning of a round destroying large chunks of the playfield since getting the timing right and staying out of the blast radius both become trickier as their snake gets longer and longer.

There's a wealth of options available from the title page to configure the keyboard controls or playing speed and, alongside the main campaign mode where each level has been created by the developers, is a second expedition where the stages are randomly generated. The menu also offers three single-stage modes – one is randomly generated with the complexity of the hazards being user-selectable, another allows the player to input how many of each element they want included and the third is a traditional version the game with no obstacles beyond the snake's body to worry about. All of those options mean that, while *Minesnake* might be a simple game, it's entertaining to play and well presented with it.

>> Score **82%**



» [MZ-80A] "Say what you see…" It's like a round of Catchphrase with explosives.



» [MZ-80A] Playing in Regular Snake mode, so you only have the reptile's body to avoid.





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TUJATE

» **FORMAT:** WINDOWS » **PRICE:** FREE
» **DEVELOPER:** HIJONG PARK
» **DOWNLOAD:** KIKSTART.EU/TUJATE-WIN



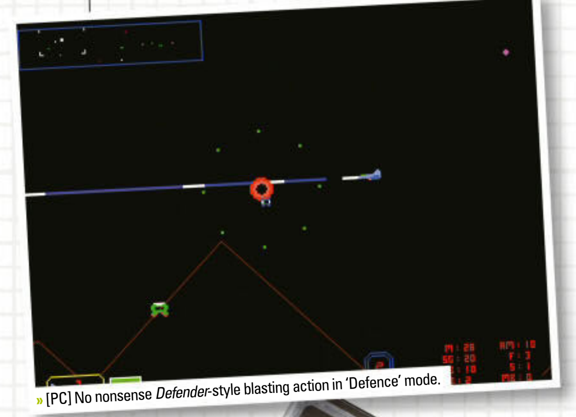
» [PC] "Okey dokey skip, where do you want to go?"

This is a scrolling shoot-'em-up which offers two playing modes to select from, with 'Campaign' giving the player a task for each stage – destroying a quota of enemies or picking up survivors for example – and 'Defence' having eight energy cubes that, possibly unsurprisingly, need to be protected from abduction.

It's fortunate that, along with being highly manoeuvrable, the player's craft starts off with a good laser and a wide range of secondary weapons, the latter have limited ammunition which is replenished by items in campaign or reaching a score milestone with defence.

This is essentially two games in one and it's the campaign mode that really shone for us, taking elements from Eighties classics like *Defender* and *Choplifter* and blending them together into a fast-paced action game. The ship takes a few hits before exploding, but with so many attackers in play at once that's for the best!

>> Score **84%**



» [PC] No nonsense *Defender*-style blasting action in 'Defence' mode.

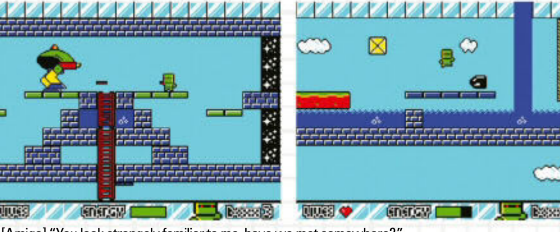
BOXX 3

» **FORMAT:** COMMODORE AMIGA » **PRICE:** FREE
» **DOWNLOAD:** KIKSTART.EU/BOXX-3-AMIGA » **DEVELOPER:** LEMMING880

Brightly-coloured graphics combined with challenging run-and-jump arcade action have always been the hallmark of Lemming880's *Boxx* series and the latest release *Boxx 3* is no different. As with the previous iterations the objective is to traverse each stage while collecting coins by stomping on certain enemies or head butting special blocks. The hazards include lava pits, energy-draining water, gun bases, patrolling enemies or larger, trigger happy bosses which need to be blasted; parts of the level can also be altered by throwing switches.

Although it isn't heavily taxing, getting through the trickier parts of the game will require both forethought and solid hand-to-eye co-ordination, so before wading in at the deep end it's advisable to spend a little time acclimatising to the controls and collision detection. As with its predecessors, *Boxx 3* requires at least an A1200 to be enjoyed as the author intended.

 Score **88%**



» [Amiga] "You look strangely familiar to me, have we met somewhere?"

ROUNDUP

Having recently purchased an Amstrad CPC, Norbert Kehrer decided to port *Phoenix* to it in the same way he'd previously got *Asteroids* and *Sprint 1* working on various Atari and Commodore computers. Amstrad owners with itchy trigger fingers can take a look at Kikstart.eu/phoenix-cpc which goes to Norbert's website, where a disk image containing two versions using mode 0 and 1 graphics can be downloaded.

Kaverns Of Kfest is a simple, vertically scrolling avoid-'em-up similar to BASIC action games where the scrolling is done with PRINT. Written for the Apple II in 2016 by Kevin Savetz, there's now a port for the Atari 8-bit as well. Kikstart.eu/kaverns-a8 delves into the announcement thread.

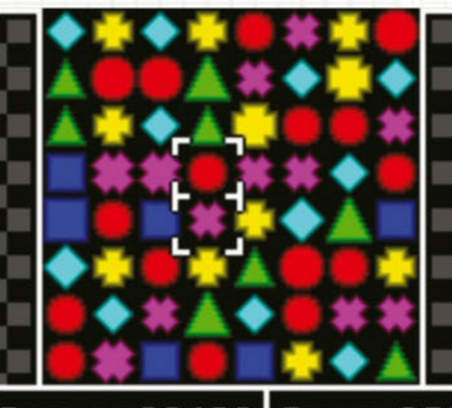
GEOMETRIX

» **FORMAT:** GAME BOY COLOR » **DEVELOPER:** ANTONIO NINO DIAZ » **DOWNLOAD:** KIKSTART.EU/GEOMETRIX-GBC » **PRICE:** FREE

At first glance, *Geometrix* might seem like a regular 'match three' style game where the player is presented with a field of colourful shapes and, by swapping two over either horizontally or vertically, must create rows and columns with three or more of the same item which are then removed. But there is one deviation from the standard format here; normally only moves that complete a row or column are valid, but *Geometrix* allows any move, meaning that longer chains can be lined up with multiple swaps.

There are also three game modes to select in the main menu; both 'Swap Limit' and 'Time Limit' give the player a quota to deal with and constantly top up the playfield as items are removed, while 'Clear Screen' is harder since the player instead has to empty the playfield without ending up stuck without a way to dispose of the remaining gems.

>> Score **79%**



» [Game Boy Color] A little planning and bingo – five purple crosses in a row!



MAILBAG

HAVE YOUR SAY… SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**



STAR LETTER

TOO LATE TO THE PARTY

Dear **Retro Gamer**,

One of the things that people used to say was great about retro gaming was that it was cheap, and I'm sure we all remember when you could pick up half a dozen classics on an old console for the price of a new game. But I think I'm right to say that those days are over – retro game prices keep creeping up and I can't see how they're ever going to go back down. If you weren't into retro gaming before, now is probably the worst time to get into the hobby.

Do you know who I blame for all of this? You lot. If it weren't for the likes of **Retro Gamer** and the myriad YouTube channels covering old games, I'm pretty sure I'd be able to pick up a multi-million seller like *Donkey Kong Country* for less than the £30 a boxed copy goes for now. That's before we even mention systems like the Saturn, for which many desirable games are becoming completely unaffordable. I'd ask if you could stop promoting our wonderful little hobby, but I think that horse has already bolted. Curse you!

Andy Phillips



» [Dreamcast] You'll be surprised at how much cash titles like *Cannon Spike* now sell for. We certainly were.

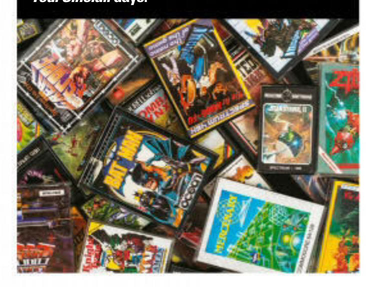
How cheeky! Seriously, though, the increase in prices of retro games is a trend we've been noticing as well. Games we picked up for a fiver back in 2012 seem to be going for three times as much now, and the problem seems worse at the high end of the market – previously affordable games like *Cannon Spike* are now way more expensive than brand-new games, easily clearing the £100 hurdle. The sole consolation is that for those of us already into retro games, relative values have been pretty constant so you can sell what you've finished with in order to play different retro games.

Still, it's giving us the idea to investigate this more closely, so look out for a suitably-themed feature in the coming months.

DISCUSSED THIS MONTH

The Box From Bath

Our colleagues on *Official PlayStation Magazine* and *GamesMaster* were having a bit of an office tidy, and asked if we'd want any of their old games. One ,'Yes please!' later, we had dozens of ZX Spectrum tapes – we like to imagine they were handed from team to team since the classic *Your Sinclair* days.



YAR HAR FIDDLE DI DEE

Dear Sir or Madam,

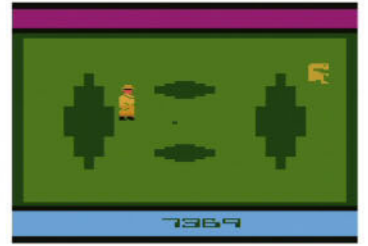
This may seem like a strange question but is illegal game copying still rife these days? I know that it used to be a real problem with the 16-bit computers and even more so with the preceding 8-bit generation.

I used to love how software houses tackled piracy. For some it was random words from the manual, for others (*Battlehawks 1942* and *Silent Service II* spring to mind here) it was unit identification, but my personal favourite was the *Rocket Ranger* code wheel, which made me feel like a secret agent before the game had even begun!

Some of my friends used to hate using such devices but I found it all part of the playing experience.

Stuart Hardy

Piracy is definitely still a factor in the gaming market, particularly on the PC, but it doesn't seem like any of today's platforms are as badly afflicted as certain past systems. Our favourite anti-piracy measure actually appeared in a modern game, *Game Dev Tycoon*. In an ironic (and genius) echo, users playing illegal copies found that their 'games' would be pirated to the point of unprofitability!



» [Atari 2600] The fixed version of *E.T.* is definitely better than the original – what do you guys think?

BE GOOD

Hi **RG**,

Thank you for your article on the making of *E.T.*. I've found the game to be one of those urban legends, and have read about it a few times, along with watching the *Atari: Game Over* documentary and seeing the excavation of the buried games out in New Mexico.

After all that hype, I had to pick a copy of the game up! Considering how expensive retro games are at the moment, I managed to get a copy very cheaply (maybe the trusty 2600 is not so expensive to collect for?), and had a play. My honest opinion is that the game is just very buggy. If you think back to the days it was written, most people were used to *Pac-Man* or *Space Invaders* type of games, and here was a sprawling adventure game, which when coupled with the bugs, must have been hard to work out what you were supposed to do (and how to do it).

Anyway, the reason I wrote in really is because I wanted to highlight this article that I stumbled upon – neocomputer.org/projects/et/, where the author effectively fixes the bugs. I think anyone who is interested in the games history should take a look at the patched version – I think they'll agree it isn't a bad game at all.

Richard Tappenden

It's certainly a much better experience with the fixes, and definitely ahead of its time – it's still not in the upper echelon of Atari 2600 games, though, we reckon. We also want to hear your take on this, however – so what do you think, readers?

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PAL PROBLEMS?

Hi there,

I recently picked up the *N64 Book* you published and enjoyed it thoroughly. The N64 was and has always been my favourite system and to learn so much of the development of it was so interesting but frustrating in a way as it sounded as though some poor choices were made in terms of graphical ability and connection tech. Which brings me to the point of my email; at the end of the first feature of the book you mentioned a preferred regional console. I was hoping to get a little more information about this if possible. I'm a UK resident and so own a PAL region N64. Is there definitely no mod for a PAL system that would allow it to work on modern HDTVs and improve the image quality? And are these even the issues?

I'm quite a Luddite and there's so much info out there I'm not sure what to follow. Any help would be greatly appreciated.

Frank Dorans

Hi Frank, we're glad to hear that you enjoyed the book. The good news is that the latest video mods work on all N64 models.

An Australian engineer named Tim Worthington has produced a new RGB mod for the N64, which provides the best analogue video signal possible over a SCART connection. This connection will shine on an old CRT TV, but on a modern HDTV you might want to add an upscaler (for more information on those devices, check out issue 162).

Hardcore N64 enthusiasts might prefer the UltraHDMI mod. This mod bypasses the analogue video circuitry to offer a pixel-accurate digital signal that looks awesome on an HDTV, and it features a number of filters to add scanlines, remove the console's blurring effect, mimic a CRT and more. However, this mod doesn't come cheap and is currently in high demand.

Of course, the other differences between PAL and NTSC machine haven't changed. Region locking is still enforced (though this can be defeated with a mod), and the most PAL games aren't optimised so they'll run slower than the NTSC versions, with borders at the top and bottom of the screen.





From the forum

Every month, **Retro Gamer** asks a question on the forum and prints the best replies. This month we wanted to know…

What was your first encounter with the Amiga?

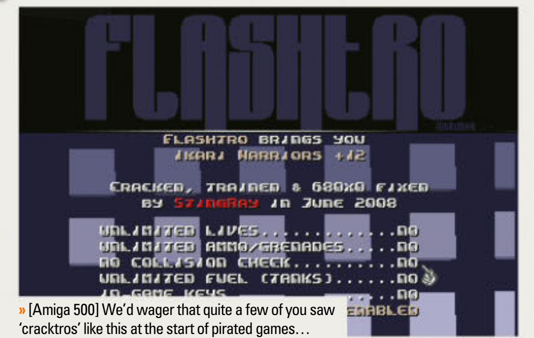
Sokurah
I'm pretty sure it was *The Faery Tale Adventure* at a friend's house. Coming from the Speccy I was pretty impressed with the size of the world and what options there were – and I played it a lot when I got my own Amiga sometime later.

ncf1
After what seemed like many cruel hours (that was most likely minutes) waiting for a signal to come up, we were finally greeted with the rather lame driver that was *Crazy Cars*. Thankfully I had a zen-like inner voice though, as I knew it was to be but a red herring and there were many, many entertaining hours to come on this glorious machine.

Carrot007
It has to be *Jesus On Es*. Saw the demo at a friend's and decided to swap my Mega Drive for one.

necronom
I remember this well. It was at the Saltburn Community Hall and the System 2000 Computer Club (of which I was a member, along with a school friend and our Computer Studies teacher) did a demo of it. We were all sat on chairs and the Amiga 1000 was on a small table in front of us, like being on a pedestal. We saw the *Boing!* demo and were all amazed by it.

PostieDoc
I got mine with the *10-Star Pack* and the first game I played was *Ikari Warriors*. While it is quite basic, I had a blast in two-player co-op with my brother.



» [Amiga 500] We'd wager that quite a few of you saw 'cracktros' like this at the start of pirated games…

NorthWay
I read about the Amiga in the CU pages while on summer vacation in Sweden; it sounded too good to be true. Years later I saw it at a local dealer where it was running *Mindwalker* – and it was true!

malczx
Going into Tandy in 1991 and pondering over whether to purchase an Amiga 500. As soon as the sales assistant booted up the first disk from *Bart Simpson Vs The Space Mutants* with the spaceship animation and Bart jumping down the tree that was me, sold! Goodbye to my ZX Spectrum of eight years, hello amazing sound and graphics!

thingonaspring
When I went round to a friend's house and saw *Batman The Movie*, I saved up my paper round money, and it was first computer I bought for myself.



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ENDGAME



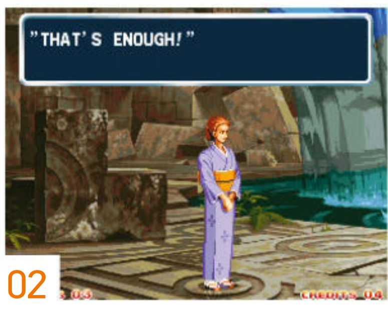
ART OF FIGHTING 3: KASUMI TODOH'S ENDING

» After being defeated by Ryo Sakazaki in Art Of Fighting, Ryuhaku Todoh has gone missing. Upon learning of her father's defeat, Todoh's daughter Kasumi decides to avenge his honour, leaving for the USA in order to avenge this loss. If she manages this, her dad might even come home! Let's skip to the end to see if the plan works out…



01

» Ryo Sakazaki has been staggered, and our heroine Kasumi can move in for the final blow. It's her crowning moment of glory – in an instant, she will have avenged the honour of her father by besting the man who defeated him.



02

» Enter stage left the teenage girl's most powerful adversary – her own mother. Mizuho Todoh demands a cessation of hostilities from her hot-blooded daughter. Maybe she wants to deliver the finishing strike on behalf of her husband?



03

» Never mind, it's a simple parental dressing-down. Apparently, Mizuho wasn't happy with her daughter hopping on a plane to America in order to beat up a complete stranger. Kasumi quickly tries to lodge a protest, only to receive…



04

» A slap in the chops! That's the price you pay for disobedience in the Todoh family. Kasumi is ordered not to bring dishonour to the family name, and she shame-facedly agrees. That's our protagonist – easily capable of taking down world-class martial artists, but powerless against her mother's disapproval.



05

» Mizuho apologises to Ryo and tells him that her husband is training for a rematch, and invites him to Japan for the opportunity. The pair then leave, although not before Kasumi can challenge him to a rematch of her own – an action that results in yet another admonishment from Mizuho.

9000 9001



Moonoids
The Moon Liberation Army have captured representatives of the earth federal government and have imprisoned them in prison bases on and under the moon surface. There are no guards in the prisons but be wary of the enemy bases and craft that want nothing better than to dispose of you.
Rescue the prisoners and destroy the enemy.
Coming soon:
Join the steam community then go to this link feedback welcome.
https://goo.gl/4c1XfV
by Charles Swires